



City and Port of Cardiff

PUBLIC HEALTH DEPARTMENT

ANNUAL REPORT 1935

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and
Medical Officer for Public Assistance.*

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COMMITTEES.

Health Committee.

THE LORD MAYOR (Alderman G. FRED EVANS, J.P.).

Chairman :

Alderman JOHN DONOVAN, C.B.E., J.P.,*†‡.

Deputy Chairman :

Councillor JAMES GRIFFITHS, J.P.*†‡.

Alderman Sir C. W. MELHUISH, J.P.*†‡	Councillor H. E. WHITE, J.P.†‡
„ O. C. PURNELL, J.P.*	„ A. J. BEECHER†‡
Councillor T. J. MULLINS†‡	„ F. CHAPMAN*
„ W. R. WILLS*	„ A. J. MARTIN†‡
„ R. G. ROBINSON†‡	„ G. E. B. FREWER*
„ ABRAHAM LEWIS†‡	„ W. T. BANBURY†‡

Hospitals Sub-Committee.

The Health Committee with the following co-opted members :

Dr. R. ARMSTRONG.

Sir EWEN J. MACLEAN, J.P., M.D., F.R.C.P.

Dr. T. McKELVEY.

Lord Pontypridd Hospital Visiting Sub-Committee.

Members of the Health Committee whose names are marked thus* with the following co-opted members :

Mr. CHARLES THOMPSON, J.P.

Mr. HERBERT M. THOMPSON, J.P.

Maternity, Child Welfare and Tuberculosis Sub-Committee.

Members of the Health Committee whose names are marked thus † with the following co-opted members :

Mrs. A. KERRIGAN, J.P.

Mrs. E. THOMAS.

Mrs. M. S. STEWART, J.P.

Sanitary Services Sub-Committee.

Members of the Health Committee whose names are marked thus ‡

Special Services Committee of the Education Committee.

Chairman :

Alderman Sir W. R. WILLIAMS, J.P.

Deputy Chairman :

Councillor H. E. WHITE, J.P.

The Lord Mayor (Alderman G. FRED EVANS, J.P.).	Councillor T. J. MULLINS.
Alderman H. HILES, M.B.E., J.P.	„ G. J. FERGUSON
„ O. C. PURNELL, J.P.	„ MORGAN DAVIES, J.P.
Councillor W. G. HOWELL.	„ J. P. COLLINS.
„ C. H. McCALÉ.	„ G. E. B. FREWER.
„ J. HELLYER.	„ T. G. LEYSHON.
	„ J. D. WILLIAMS.

Co-opted Members :

Miss MABEL HOWELL.

Miss M. SANDERS, J.P.

Joint Health and Education (Medical Services) Sub-Committee.

Representatives of Health Committee:

Alderman JOHN DONOVAN, C.B.E., J.P.
 (Chairman)
 Councillor JAMES GRIFFITHS, J.P.
 „ A. J. BEECHER.
 „ F. CHAPMAN.
 „ W. T. BANBURY.

Representatives of Education Committee:

Alderman Sir W. R. WILLIAMS, J.P.
 THE LORD MAYOR (Alderman G. FRED EVANS, J.P.)
 Alderman H. HILES, M.B.E., J.P.
 „ O. C. PURNELL, J.P.
 Councillor R. G. ROBINSON.

Mental Deficiency Committee.

THE LORD MAYOR (Alderman G. FRED EVANS, J.P.)

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Councillor T. J. MULLINS.

Deputy Chairman:

Councillor G. STEEL, J.P.

Councillor R. G. ROBINSON.

„ T. J. KERRIGAN.

„ ABRAHAM LEWIS.

„ W. H. J. MUSTON.

„ J. P. COLLINS.

Councillor F. CHAPMAN.

„ A. J. MARTIN.

„ A. POWELL.

„ W. T. BANBURY.

„ T. H. LOVITT.

Councillor J. D. WILLIAMS.

Co-opted Members :

Mrs. M. S. STEWART, J.P.

Mrs. A. KERRIGAN, J.P.

Mrs. C. CANTILLON.

Mrs. A. A. EVANS.

Public Assistance Committee.

THE LORD MAYOR (Alderman G. FRED EVANS, J.P.)

Chairman :

Alderman SIR C. W. MELHUISE, J.P.

Deputy Chairman :

Alderman O. C. PURNELL, J.P.

Councillor C. H. McCALE.

„ JAMES GRIFFITHS, J.P.

„ G. STEEL, J.P.

„ ABRAHAM LEWIS.

„ J. HEGINBOTTOM.

„ MORGAN DAVIES, J.P.

Councillor C. G. MORELAND.

„ F. CHAPMAN.

„ A. J. MARTIN.

„ G. E. B. FREWER.

„ A. POWELL.

„ T. H. LOVITT.

Councillor A. WESTON

Co-opted Members:

Mrs. M. S. STEWART, J.P.

Mrs. C. CANTILLON.

Mrs. A. A. EVANS.

Mr. J. J. AMES.

Mr. G. D. THOMAS.

Mr. G. H. SNOOK.

Mr. F. INGLETON.

Mr. E. J. SAWYER.

STAFF.

Medical Officer of Health, School Medical Officer, Medical Officer for Mental Deficiency and Medical Officer for Public Assistance.

J. GREENWOOD WILSON, M.D. (Lond.), F.R.C.P., D.P.H.

Deputy Medical Officer of Health.

W. POWELL PHILLIPS, M.R.C.S., L.R.C.P., D.P.H.

Assistant Medical Officers :

HERBERT SHEASBY, M.B., Ch.B., D.P.H.

HELENA J. WEBSTER, B.Sc., M.B., B.Ch.,
D.P.H.

CECIL W. ANDERSON, M.B., Ch.B., D.P.H.

NANCY K. GIBBS, M.R.C.S., L.R.C.P., D.P.H.

HILDA A. COHEN, M.R.C.S., L.R.C.P., D.P.H.

T. ISLWYN EVANS, M.A., M.B., Ch.B., D.P.H.

JEAN W. SMELLIE, M.B., Ch.B., D.P.H.

Specialist Medical Officers (Part-time) :

Ophthalmic Surgeon : RUPERT J. PARRY, M.B., B.S. (Lond.)

Orthopaedic Surgeon : A. O. PARKER, M.D., C.M., M.C.P.S. (Man.)

Dental Staff :

D. W. ELLIOT, L.D.S.

W. A. SUTHERLAND, L.D.S.

D. J. ANDREWS, L.D.S.

H. B. WILSON, L.D.S.

Four Clerk-Attendants.

Health Visiting, School and other Nursing Staff :

Supervisor : Mrs. L. HUNTLEY.

Thirteen Health Visitors (Including two part-time
Tuberculosis Nurses).

Two Tuberculosis Nurses (Whole-time).

One Venereal Diseases Nurse.

Nine School Nurses.

Two Orthopaedic Nurses.

Sanitary Staff (Urban) :

Chief Inspector : W. G. PYATT.

One Chief Assistant Inspector.

Fifteen Assistant Inspectors.

Sanitary Staff (Port) :

Chief Inspector : T. D. HILL.

One Chief Assistant Inspector.

Five Assistant Inspectors.

Veterinary Inspection and Meat Inspection (Abattoirs) Staff :

Veterinary Officer and Chief Inspector of Meat : JOHN H. M. HUGHES, M.R.C.V.S., D.V.S.M.

Three Assistant Inspectors of Meat.

Public Analyst :

STANLEY DIXON, M.Sc., F.I.C.
One Laboratory Assistant.

Mental Deficiency Staff :

Visiting Officer : Miss K. POWELL.
Occupation and Training Centre :
Supervisor : Mrs. A. DASCOMBE.
One Instructress and 1 Instructor.

Clerical Staff (excluding Hospitals) :

Chief Clerk : THOMAS CHANT.

Eleven male Clerks and 6 female Clerks (General Public Health Service, etc.).
Two male Clerks and 8 female Clerks (School Medical Service).

Other Staff :

One Epidemic Officer.
One Infant Protection Visitor.
One Vaccination Officer.

Hospitals :

Llandough Hospital :

Medical Superintendent : DAVID G. MORGAN, M.R.C.S., L.R.C.P. (Also Medical Officer, City Lodge)
Deputy Medical Superintendent : D. A. WILLIAMS, B.Sc., M.B., B.Ch., M.R.C.S., L.R.C.P.
Senior Assistant Medical Officer : G. H. GARFIELD, B.Sc., M.B., B.Ch., M.R.C.S., L.R.C.P.
Matron : Miss C. L. JOHN (Also Superintendent Nurse, City Lodge)
Dispenser : SELWYN DAVIES, Ph.C., M.P.S.
Almoner : Miss G. OLWEN WILLIAMS.
Five Junior Resident Medical Officers.

Visiting Consultant Staff :

Physician : Professor A. M. KENNEDY, M.D., F.R.C.P.
Surgeon : D. J. HARRIES, D.Sc., M.D., F.R.C.S.
Gynaecologist : Professor G. I. STRACHAN, M.D., F.R.C.P., F.R.C.S., F.C.O.G.
Radiologist : T. GARFIELD EVANS, M.D. (Lond.), D.M.R.E.
Aural Surgeons : R. D. OWEN, B.Sc., F.R.C.S. (Ed.) ; A. A. PRICHARD, M.D.
Orthopaedic Surgeon : A. O. PARKER, M.D., C.M., M.C.P.S. (Man.)
Physician for Diseases of Children : A. G. WATKINS, M.D. (Lond.), M.R.C.P. (Lond.)
Pathologist : Professor J. B. DUGUID, M.D.
Bacteriologist : W. PARRY MORGAN, M.A., M.D.
Anaesthetist : H. G. GREAVES, M.B., B.Ch.
Dentist : W. E. HALLINAN, L.D.S.

Isolation Hospital :

Medical Superintendent : G. EMRYS HARRIES, M.B., B.S. (Lond.), D.P.H.
Matron : Miss E. P. CHUBB.
One Junior Resident Medical Officer.

Lord Pontypridd Hospital :

Matron : Miss M. W. Fox.

Public Vaccinators (Part-time) :

J. J. BUIST, M.B. (Lond.)	A. DOWER, M.D.
C. C. RALPH DOWNING, M.D.	H. C. C. JOYCE, M.R.C.S., L.R.C.P.
E. MERVYN JONES, M.R.C.S., L.R.C.P., D.P.H.	J. F. DOVER, M.B., B.S.

Public Assistance Medical Officers :

City Lodge :

Medical Officer : DAVID G. MORGAN, M.R.C.S., L.R.C.P. (Also Medical Superintendent, Llandough Hospital)

Deputy Medical Officer : JOHN JONES, M.B., B.Ch.
Two Resident Assistant Medical Officers.

Ely Lodge (P.A. Mental Deficiency Institution) :

Medical Officer and Master : J. ROWLAND PAYNE, M.R.C.S., L.R.C.P.

District Medical Officers:

H. D. E. WHITMAN, M.R.C.S., L.R.C.P. (Whole-time)	E. LLEWELLYN, M.B., Ch.B. (Part-time)
E. MERVYN JONES, M.R.C.S., L.R.C.P., D.P.H. (Whole-time)	A. H. MITCHELL, M.B., Ch.B., (Part-time)
A. DOWER, M.D. (Part-time)	J. F. DOVER, M.B., B.S. (Part-time)
D. W. GIRVAN, M.B., C.M. (Part-time)	H. C. C. JOYCE, M.R.C.S., L.R.C.P. (Part-time)

PREFACE.

ON MAKING THE BEST OF A BAD JOB.

"And so he that had received five talents came and brought other five talents, saying, Lord, thou deliveredst unto me five talents: behold, I have gained beside them five talents more.

"His lord said unto him, Well done thou good and faithful servant: thou hast been faithful over a few things, I will make thee ruler over many things: enter thou into the joy of thy Lord."—ST. MATTHEW XXV, 20 and 21.

On 1st April, 1930, Llandough Hospital, while yet in the earliest stages of its construction, was appropriated from the Board of Guardians for administration under the Public Health Acts, in terms of section 95 of the Public Health Acts Amendment Act, 1907. On the same "appointed day" (1st April, 1930) the Medical Officer of Health for Cardiff became also the Medical Officer for Public Assistance. When Llandough Hospital was formally opened on 25th October, 1933, by Alderman John Donovan, C.B.E., J.P., Chairman of the Cardiff Health Committee, it contained already its first complement of patients, all the acute sick and all the children, except healthy infants, having been transferred from City Lodge.

Then there arose in the minds of the newly-formed Public Assistance Committee a feeling that City Lodge, which, like many of themselves, had served the needs of Cardiff sick poor for so long, had been thrown on the scrap heap and would no longer be usefully employed. At this stage the Medical Officer for Public Assistance was asked to prepare a comprehensive report on the possibilities of future developments at City Lodge. The report was prepared early in 1935 (*before* the publication of the Report of the British Medical Association Committee on Fractures) and soon passed both the Public Assistance Committee and the City Council.

Following the adoption of this report, some interesting developments have taken place at City Lodge, two of them proposed in the report and the third by coincidence. These three developments are :—

- (1) The establishment of a Fracture Unit as the centre of a municipal accident service and in association with a new Central Orthopaedic Clinic.
- (2) The reorganisation of the Maternity Department.
- (3) The Asthma Clinic.

Any one of the three would have been worth striving to achieve for its own sake, but in combination they bid fair to bring a greater reputation to City Lodge (now when its useful life had been thought to be over) than it had in the heyday of its "acute sick" career. The success of these developments has been made possible by co-operation between the committees concerned.

Firstly, there is the Joint Health and Public Assistance Sub-Committee which meets to settle matters of mutual interest and particularly to arrange co-operation between Llandough Hospital and City Lodge.

Secondly, it has been decided by the City Council that the Health Committee shall appoint, control and dismiss the medical and nursing staffs employed at the City Lodge, subject to the general direction and control of the Public Assistance Committee.

Thirdly, the Medical Officer of Health is also Medical Officer for Public Assistance.

Lastly, the Medical Superintendent of Llandough Hospital is Medical Officer of City Lodge, the Matron of Llandough Hospital is Superintendent Nurse at City Lodge, and the medical staffs (both visiting and resident, and including the doctor who runs the Asthma Clinic) of both institutions have responsibilities in both.

(1) THE CARDIFF MUNICIPAL ACCIDENT SERVICE.

It should first be explained that this title is not given in any spirit of ostentation, but rather in an attempt to make it clear that, although the aim is to attract as many accident cases as possible to City Lodge Accident Unit in the first instance, the service does not end there, but is like the span of a bridge supported by three columns, one column founded upon City Lodge, the third founded upon Llandough Hospital and the centre column founded in the Central Public Health Office.

(a) *The Accident and Orthopaedic Clinics at City Lodge.*—

(i) *The Building.*—Although it had been intended originally to develop an Accident Clinic in the general out-patient department of City Lodge, it was found that, by evacuating a block occupied by healthy children and spending a relatively small sum of money on adaptation, a self-contained Accident Unit could be obtained. The healthy children were transferred to the Ely Poor Law Children's Homes on the outskirts of Cardiff. A plan of the block after adaptation appears on page 53. The massage room has six treatment tables, each in a curtained cubicle. Communicating with the massage room and the reception room is the plaster room, where is housed normally a portable X-ray apparatus. The large X-ray apparatus is situated in another part of the institution. For in-patients there are eight beds communicating with the treatment rooms (four female and four male). The male and female wards are separated by domestic offices (kitchen, sluice room, etc.). A special feature of the massage room (not shown on the plan) is a developing room, made by adaptation from a cupboard formerly used for storage of splints. This makes for speed and convenience in developing films taken by the portable X-ray apparatus. Adjacent to the massage room is the Sister's duty room, which is also used by the Resident Assistant Surgeon as his administrative office, and here all case records are kept. Beyond the Fracture or Accident Unit is the Central Orthopaedic Clinic, which communicates with the former only by a single door; only the staff are allowed to pass from one to the other. The Central Orthopaedic Clinic has an entirely separate entrance and waiting-room and separate medical and nursing staff from that of the Accident Unit, except for the Visiting Consultant Surgeon, Mr. A. O. Parker, but as he is in charge of the clinical work in both departments, and as both come ultimately under the administration of the Medical Officer of Health and School Medical Officer, it is convenient to have the two under the same roof. In fine weather both the Central Orthopaedic Clinic patients and the Fracture Unit patients can use for open-air remedial exercises an adjacent tar-macadamised area.

(ii) *Cost of Adaptation.*—

(a) For whole block	....	....	....	....	....	£290
(b) For that portion which is devoted to the Accident Unit alone	....	....	....	....	....	£161

(iii) *Cost of Equipment.*—

<i>Accident Clinic.</i> —					£	s.	d.
Plaster Room	....	....	....	....	221	1	1
Examination and Massage Room	....	....	....	....	52	12	0
Duty Room (Office)	....	....	....	....	28	11	9
Developing Room	....	....	....	....	16	4	0
Instruments, etc.	....	....	....	....	52	19	0
Total	....	....	....	....	£371	7	10

Orthopaedic Clinic.—Apart from a few small items, e.g., tables, cupboards, etc., the equipment of this clinic was purchased some years ago and was transferred *en bloc* from the old premises to the present accommodation.

(iv) *X-rays*.—A special feature is the portable X-ray apparatus. At first X-rays were carried out in the hospital X-ray room, but this was found not to be convenient and a portable X-ray apparatus was then purchased. It is a Siemens' Heliosphere, costing £170 altogether, and takes excellent photographs. Every case of a suspected fracture is X-rayed on admission (two films). If there is a fracture present an X-ray is taken following reduction (two films). The fracture is then X-rayed at regular intervals until recovery is complete and the patient is discharged. In some cases as many as 15 films have been taken. The average number of photographs per case would probably be about six, and the average total number of photographs taken per week is now between 40 and 50. Although the Accident Unit team usually take, develop and diagnose their own X-ray photographs, the opinion of the Visiting Consultant Radiologist (Dr. Garfield Evans) is available when required, and the main hospital apparatus may also be used when necessary.

(v) *Personnel*.—

(a) *The essential team* is the Visiting Surgeon, Mr. A. O. Parker, the Resident Assistant Surgeon, Dr. Dillwyn Evans, and the Plaster Sister, Sister Carden. All have special experience in orthopaedic and fracture work. Mr. Parker lives near the City Lodge and visits the Accident Unit as often as required. He also has a minimum of 10 beds reserved to him at Llandough Hospital, where he carries out major operations on accident cases. When he goes there for this purpose he takes with him the other members of his team—the Resident Assistant Surgeon and the Plaster Sister. The other two members of the team also go to Llandough Hospital independently of Mr. Parker for “following up,” e.g., adjustment of splints, plasters, etc.

(b) *Assistants to and Deputising for the Accident Unit Team*.—

1. No visiting deputy has been appointed for the Visiting Surgeon. The Resident Assistant Surgeon “carries on” in his absence.

2. The Resident Assistant Surgeon has for deputy the Senior Resident Medical Officer of City Lodge (Dr. John Jones) who has had considerable experience in the treatment of accidents with and without fractures. In case of need he assists in the work, e.g., to give anaesthetics.

3. A Junior Resident Medical Officer is employed at City Lodge in addition to the Senior Resident Medical Officer. He also is available in case of need for assisting in the medical work of the Accident Unit, e.g., by giving anaesthetics.

4. The Plaster Sister has for deputy a trained staff nurse.

5. A senior nurse acts in the absence of the staff nurse.

6. Junior nurses are drafted to the Unit for assistance as required.

(vi) *Relationship to Llandough Hospital*.—The relationship between City Lodge and Llandough Hospital is rather like that existing between a field ambulance and a base hospital.

It is considered to be desirable that as many accidents as possible of all kinds should go in the first instance to City Lodge, where they are sorted out. From City Lodge, head cases, wounds and lacerations of the soft parts, known to be uncomplicated by fracture, are sent direct to Llandough Hospital, provided that they have first had any necessary emergency treatment and provided that their general condition warrants the journey.

It should be emphasised that cases are not passed on to Llandough Hospital if there is any question of their needing immediate treatment, such as cleaning up or rest for shock. They may stay in the Accident Unit. Head and shock cases remain in the Accident Unit beds until it is safe to remove them.

The co-ordination of City Lodge Accident Unit with Llandough Hospital has been greatly assisted by a pre-existing interlacing of medical and nursing staffs. Thus, although City Lodge as a whole, being a poor-law institution, is under the administration of a Master, the Medical Officer is also the Medical Superintendent of Llandough Hospital and the Superintendent Nurse is also the Matron of Llandough Hospital. The Deputy Medical Officer or Senior Resident Medical Officer at City Lodge spends two mornings per week giving anaesthetics at Llandough Hospital. The Visiting Radiologist to Llandough Hospital visits also at City Lodge. The Visiting Obstetrician and Gynaecologist at Llandough Hospital is also available for consultation at City Lodge. There is therefore a general atmosphere of co-ordination between the two institutions.

(vii) *Scheme of Work.*—

(a) *Immediate Treatment.*—

(1) On being accepted for treatment a general examination of the patient is made.

(2) The suspected part is X-rayed.

(3) Should a fracture be diagnosed as the result of the clinical and X-ray examination, displacement is reduced, the parts fixed by an appropriate form of splintage and re-X-rayed.

(b) *Disposal of Patients.*—

(1) Where possible patients are allowed to go to their homes and are given an appointment to attend the Clinic for after-care.

(2) The eight beds are available for short-stay cases (remaining, say, 24 to 48 hours). These beds are also useful for patients recovering from anaesthesia and to accommodate patients while their plasters dry before they are allowed to proceed home. The beds are especially useful in order to keep a patient under continuous observation following manipulation. Needless to say, this is of great importance in the prevention of complications, such as ischaemic contraction following injuries around the elbow joint.

(3) Fractures which require hospitalisation are transferred to Llandough Hospital either immediately or after any necessary emergency treatment (including treatment for shock) has been carried out. No open operations are carried out at the Clinic and cases that require this class of operative interference are sent to Llandough Hospital.

(4) Compound fractures are frequently cleaned up and the displacements corrected in the Accident Clinic. Ultimately they are all transferred to Llandough Hospital.

(5) All cases are treated in the first instance by the Resident Assistant Surgeon who has been specially engaged for the accident service. During any temporary absence of this special officer, the Senior Resident Medical Officer of City Lodge deputises.

(c) *Daily Supervision.*—

The daily accident clinic is conducted by the Resident Assistant Surgeon (specialising in fractures). The patient attends every day when this is necessary, but each case is treated according to its individual requirements. The Visiting Surgeon attends the Clinic twice weekly and reviews the cases under treatment. In addition to the two formal weekly visits, he also attends for any special emergency cases and for cases in which the Resident Assistant Surgeon feels that a consultation would be helpful. In practice it is found that this rather elastic arrangement is most satisfactory.

(d) *Weekly Clinics.*—

The Resident Assistant Surgeon holds a special clinic twice in each week at which all the cases under treatment are reviewed. The Visiting Surgeon does not actually attend at these clinics but examines all X-ray photographs and individual cases that are brought forward by his Resident Assistant. Approximately 100 cases are under treatment at any given time.

(e) *Case Records.*—

The case sheet includes a full description and history of each patient throughout the whole period of treatment. The notes are made by the Resident Assistant Surgeon. X-ray photographs are filed at the Accident Unit and bear the same index number as the case sheet. Records are filed in triple cross-index.

(f) *Co-operation with Private Practitioners.*—

The private practitioner is notified of the diagnosis and is acquainted with the treatment which is being carried out. It is found that practitioners make increasing use of the Accident Clinic and readily refer their patients for treatment and after-care.

(g) *Teaching.*—

Massage students attend the Clinic for training in the after-care of fractures and other injuries. This arrangement has been made in conjunction with the Cardiff Royal Infirmary Massage Department. At present students of the Welsh National School of Medicine do not receive instruction at the Clinic. The question of arranging post-graduate teaching at the Clinic is under consideration.

(h) *Co-operation with the adjoining School Medical Service and Maternity and Child Welfare Orthopaedic Clinic.*—

A large number of children who are receiving treatment at this Clinic require as a part of their care the application and re-application of plaster. This was formerly done at (1) the Prince of Wales Hospital or (2) at the Orthopaedic Clinic by the Medical Officer taking the Clinic. The present arrangement is that these cases are done in the Accident Unit by the Plaster Sister. This offers the great advantage that a specialist in plaster work is available for the treatment of orthopaedic cases. The plaster work is arranged to suit the convenience of both services.

(viii) *Work Done.*—The total number of accident cases treated for the first time from the date the Unit opened in September, 1935, up to the end of July, 1936 (i.e., about 11 months), was 507, and the total number of attendances during that period was 2,158. The total number of fractures treated during that period, separated into types, was as follows :—

Fractures.

Skull	{ a. Vault	....	....	....	....	—
	{ b. Base	....	....	....	....	3
Bones of face and jaw		....	....	....	....	8
Clavicle		....	....	....	....	20
	{ a. Head and neck	....	....	....	....	11
Humerus	{ b. Shaft	....	....	....	....	2
	{ c. Condylar and supra-condylar	....	....	....	....	8
	{ a. Head and neck	....	....	....	....	7
Radius	{ b. Shaft	....	....	....	....	27
	{ c. Colles'	....	....	....	....	64
	{ a. Olecranon	....	....	....	....	—
Ulna	{ b. Shaft	....	....	....	....	21
	{ c. Styloid	....	....	....	....	18
	{ a. Scaphoid	....	....	....	....	1
Small bones of hand and wrist	{ b. Rest of carpus	....	....	....	....	3
	{ c. Metacarpals	....	....	....	....	6
	{ d. Phalanges	....	....	....	....	4
Ribs		....	....	....	....	9
Sternum		....	....	....	....	—
	{ a. Body	....	....	....	....	1
Scapula	{ b. Glenoid and neck	....	....	....	....	—
Pelvis		....	....	....	....	5

Spine	a.	Cervical	....	....	....	....	—
	b.	Dorsal	....	....	....	....	—
	c.	Lumbar	....	....	....	....	2
	d.	Transverse processes and spinous processes	....	....	....	....	1
	e.	Coccyx	....	....	....	....	—
Femur	a.	Upper end	....	....	....	....	10
	b.	Shaft	....	....	....	....	7
	c.	Lower end	....	....	....	....	2
Tibia	a.	Upper end	....	....	....	....	1
	b.	Shaft	....	....	....	....	25
	c.	Lower end	....	....	....	....	15
Fibula	a.	Upper end	....	....	....	....	2
	b.	Shaft	....	....	....	....	11
	c.	Lower end	....	....	....	....	23
Patella	....	....	....	....	....	....	2
Small bones of foot	a.	Astragalus	....	....	....	....	—
	b.	Os-calcis	....	....	....	....	1
	c.	Midtarsals	....	....	....	....	2
	d.	Metatarsals	....	....	....	....	5
	e.	Phalanges	....	....	....	....	5

Dislocations.

(a) *Simple*.—

Upper limb	Shoulder including acromioclavicular	....	....	....	....	8
	Elbow	....	....	....	....	2
	Wrist and hands	....	....	....	....	5
Lower limb	Hip	....	....	....	....	—
	Knee	....	....	....	....	—
	Ankle	....	....	....	....	—
	Subastragaloid	....	....	....	....	—
	Foot	....	....	....	....	—
Sternoclavicular joint		....	....	....	....	—
Acromioclavicular joint		....	....	....	....	1
Spine		....	....	....	....	—

(b) *Fracture dislocation*.—

Upper limb	Shoulder including acromioclavicular	....	....	....	....	1
	Elbow	....	....	....	....	2
	Wrist and hands	....	....	....	....	1
Lower limb	Hip	....	....	....	....	—
	Knee	....	....	....	....	—
	Ankle	....	....	....	....	—
	Subastragaloid	....	....	....	....	—
	Foot	....	....	....	....	—
Sternoclavicular joint		....	....	....	....	—
Spine		....	....	....	....	—
Ligamentous injuries		....	....	....	....	29
Synovitis		....	....	....	....	34
Old fractures		....	....	....	....	17
Miscellaneous		....	....	....	....	154

(ix) *Almoner*.—Special importance is attached to the work of the Almoner. She is also the Almoner at Llandough Hospital, and is helped by one Assistant and one Clerk-typist. At the present time she gives her personal attention to the work of the Accident Unit, and she has been very successful in making recoveries of cost of maintenance from insurance companies under the Road Traffic Acts. Most of her work is done by personal interviews and by correspondence. From the time the Almoner began work

at the Accident Unit in March, 1936, up to the end of July, 1936, she had recovered £789. The total cost of the service for the eleven months September, 1935, to July, 1936, was £2,492. It is anticipated that, with increasing experience, the Almoner will recover more and more of the cost.

(x) *Local Government Administrative Scheme.*—The Public Assistance Committee are, so to speak, landlords of the premises at City Lodge, the Health Committee lessees and chief administrators of the scheme and the Education Committee are sub-tenants of the Health Committee in respect of the Central Orthopaedic Clinic at the western end of the newly adapted block.

(xi) *Power to Provide.*—Section 131 of the Public Health Act, 1875, as amended by the Public Health Act, 1936, gives power to provide hospital accommodation by arrangement with persons having the management of any hospital for the reception of the sick inhabitants of their district on payment of such annual or other sum as may be agreed on. The definition of the word “provide” in section 271 of the new Public Health Act still more strongly supports the action of the Cardiff Health Committee in making the arrangements for an accident service. The Public Assistance Committee, through the Institutions Visiting Sub-Committee, are the persons having the management of City Lodge, and the Health Committee, acting for themselves as well as for the Education Committee, have entered into the necessary agreement. At the end of a year's working of the new accident service the Joint Health, Education and Public Assistance Sub-Committee will meet to allocate costs. The Sub-Committee will probably meet annually for this purpose.

(xii) *Co-operation with Voluntary Hospitals.*—A Joint Sub-Committee, including representatives of Cardiff City Council, Cardiff Royal Infirmary and the Prince of Wales Hospital, was set up in January, 1936, to consider matters of interest to the bodies concerned. Recorded in the minutes of this Sub-Committee for 20th April, 1936, is a request from the representatives of the voluntary hospitals that the City Council should undertake as much as possible of the work for accidents, and the representatives of the Cardiff City Council willingly promised to do so.

(xiii) *Terminology “Accident.”*—It will be noticed that wherever possible in the foregoing account of the new Clinic at City Lodge the word “accident” has been used in preference to “fracture.” This is because it is felt that it is not usually in the power of those who are “first on the spot” at street accidents to diagnose the presence or absence of a fracture. It is desirable that accidents should go in the first instance to City Lodge, where there are adequate facilities for the accurate diagnosis of fractures and where all necessary emergency treatment for other kinds of injury may also be carried out.

(2) REORGANISATION OF MATERNITY DEPARTMENT AT CITY LODGE.

At the beginning of 1935 it was decided to review the whole position regarding the existing maternity accommodation at City Lodge. This decision was reached as the result of the steadily increasing number of admissions to the department.

Up to this time the total number of beds reserved specifically for maternity cases was 22. The department was confined to two side wards, known as ward 10, situated on the first floor of the hospital block. Immediately below this ward, on the ground floor, gynaecological patients were treated in ward 11. It frequently happened that the maternity cases could not be accommodated in ward 10, with the result that the overflow of cases had to be admitted into the gynaecological ward. This introduced a potential source of infection for “clean” maternity cases. Provision for the isolation of puerperal pyrexia observation cases was also lacking. Conditions in the maternity ward were such that the floor space for each bed averaged 65 square feet, whereas the recognised standard for maternity cases is 100 square feet.

The nursery for newly-born babies consisted of a small room adjoining one of the side wards which had become quite inadequate for the average number of occupants. To sum up the situation, it was realised that existing accommodation was not proving adequate to meet the demands made upon it.

A programme of complete reorganisation was recommended and rapidly carried into effect. The standard of 100 square feet for each bed being adopted, the whole of the ground floor ward, No. 11, previously used for gynaecological patients, was taken for maternity cases. The additional accommodation made it possible to provide a total of 32 maternity beds. It also became practicable to reserve eight of these beds entirely for expectant mothers, either those awaiting the commencement of labour or those who required treatment before confinement on account of a complication of pregnancy, such as toxæmia.

The overcrowded nursery was converted into a duty room for the Maternity Sister. A large room adjoining the ground-floor ward was equipped for use as a nursery, a feature of the room being a special type of pedestal bath, four of which have been installed for the bathing of babies.

With the completion of the reorganisation scheme, the maternity department became a compact and complete unit, but provision had to be made for the isolation of puerperal pyrexia patients. This difficulty was solved by reserving five beds in the side wards of the children's pavilion for the reception of these cases. Nursing staff are drafted to these wards when their services are required, and they have no contact with those on duty in the maternity wards.

The maternity department at City Lodge has, moreover, been brought into closer touch with the general maternity services of the city. This has been achieved by the inauguration of an ante-natal clinic which is held in the City Lodge Out-patient Department. This clinic is staffed jointly by a Medical Officer and a Health Visitor from the Public Health Department and by the Resident Medical Officer and Maternity Sister who have charge of the maternity wards. Post-natal mothers are also seen at the clinic by the staff who attended at their confinement.

As the result of almost twelve months' experience of the reorganised department, it appears inevitable that a further extension will have to be considered seriously in the near future. This may be attributed to two causes: (1) The maternity wards at the Cardiff Royal Infirmary are booking fewer Cardiff cases in order to prevent the possibility of overcrowding; (2) there is no corresponding diminution in the number of women desiring to be confined in a hospital; on the contrary, the number wishing for hospital accommodation is increasing.

(3) ASTHMA CLINIC.

The report on pages 54-56 regarding the Asthma Clinic by Dr. D. A. Williams, Deputy Medical Superintendent of Llandough Hospital, is of absorbing interest. Undertaking the work first as part of his general duties in the Out-patient Department of City Lodge, Dr. Williams had soon to devote a weekly afternoon session to it, and now, with attendances still growing, it is necessary to hold two weekly sessions, at which Dr. Williams requires the assistance of a junior medical officer. As Dr. Williams points out, the establishment of an asthma clinic under the aegis of a local authority is an innovation. It may also be regarded as one that marks the changing orientation of preventive medicine, which, at first preoccupied with the problems of human environment, turned next to those of infectious disease and faces now those of disease in general. The medical profession as a whole is learning to appreciate treatment not as an end in itself, but as a means to the prevention of disease both in the individual and in the community. To this conception the study of asthma lends itself particularly well. The investigation and treatment of asthma requires time, staff time and bed time. It requires the time of medical and scientific investigators and behind them an adequate supply of in-patient accommodation upon which there is not the pressure associated with long waiting lists. These are reasons why local authorities should be in a favourable position to conduct asthma services, and to undertake them with the co-operation of the voluntary hospitals might well exemplify a division of labour profitable to the community.

GENERAL HEALTH SERVICE.

Vital Statistics, etc.—For Cardiff the year 1935 was a remarkably healthy one. The infant mortality rate was the lowest on record, the death-rate remained at its average level and there was a low incidence of infectious disease. Thanks partly to the relatively high survival rate of infants, it is still possible to report an excess (655) of births over deaths, despite the fact that the birth-rate in 1935 was also the lowest on record. To see all these points at a glance, reference should be made to the tabulated statement on page 1 and to the diagrams on pages 3, 7 and 12.

The general death-rate of Cardiff has remained constant for a number of years around an average figure of 12·3 per 1,000 population. At least, that is the approximate rate that obtains in Cardiff during a year of normal health conditions without serious epidemics of infectious disease. The year 1933 saw a sharp rise to 13·5, but this was due to deaths from influenza during the early winter months of that year. It is difficult to say exactly why the death-rate for Cardiff remains consistently higher than the average figures for England and Wales and for the Great Towns. The populations of different towns vary considerably in their composition having regard to such factors as age, sex, occupation and nationality. An undue proportion of one town's population may consist of males following a hazardous occupation. In another town (conceivably a spa) there may be a relatively large population of elderly females. Considerations of this kind must be borne in mind in comparing the death-rates of different towns. This much may be said of the Cardiff death-rate, that it does not compare unfavourably with the death-rates for large seaport and industrial towns, and that, excluding the figures for Adamsdown and Central wards, the death-rate for the rest of Cardiff would compare favourably with that for England and Wales and for the Great Towns.

The increasing tendency for medical treatment to be sought in institutions is again reflected in the statistics of deaths occurring in them (37·5 per cent., in 1933, 39·9 per cent. in 1934 and 41·6 per cent. in 1935—see page 5).

Considering the causes of death in detail, the principal increases are in the deaths resulting from measles, influenza, heart disease, tuberculosis and cancer. The rise in the number of deaths from measles reflects a minor measles epidemic, but in 1936, so far, there have been only two deaths from measles and there is no reason to anticipate that Cardiff will suffer in 1936 from measles to an extent at all comparable with the large-scale epidemics reported in London and elsewhere.

Measles itself is not a killing disease. What is to be feared is the broncho-pneumonia that may follow as a complication. This kills a relatively large number of measles patients, especially those under 2 years, and in those that survive too often the way is paved for the appearance of pulmonary tuberculosis in later years. Unfortunately, measles is still regarded by the public as a trivial illness. The services of a doctor are frequently not obtained, or if they are, not until the child is gravely ill from broncho-pneumonia. For these reasons, it is highly important that more use should be made of the Isolation Hospital for the treatment of measles. It is desirable that all cases of measles occurring in poor homes should be sent to the Isolation Hospital for treatment in the early stages and without waiting until the child's prospects of recovery are gravely prejudiced by the onset of broncho-pneumonia.

The number of deaths (32) from influenza in 1935 was double that of the previous year, but was still below the average for non-epidemic years. In the 1933 epidemic the number of deaths from influenza was 141.

Although many premature deaths from heart disease could be prevented by adequate schemes for rheumatism prevention, it is often an inevitable cause of death in old age. The rise in the number of deaths from heart disease in 1935 probably indicates that a comparatively large number of persons had reached the end of their "allotted span." Sixty-eight per cent. of all deaths from heart disease in 1935, as compared with 65 per cent. in 1934, were in persons over 65 years of age, and for the age group 75 years and over the comparison lies between 36 per cent. of the total in 1935 and 34 per cent. in 1934.

An exhaustive study of the problem of tuberculosis in Cardiff was given in the last Annual Report. The increase in the death-rate from tuberculosis in 1935, as compared with that for 1934, is negligible (only 0·04 per 1,000) and is probably due merely to chance. As it is so small, it would be unsafe to arrive at any conclusion as to the cause. It should be noted that similar fluctuations have occurred in previous years. The tuberculosis death-rate for Cardiff is slowly declining and 1935 is the third year—the others being 1930 and 1934—for the respiratory tuberculosis death-rate to be below 1 per 1,000. The interesting diagram on page 65 shows the death-rates from respiratory tuberculosis and other forms of tuberculosis in Cardiff since 1901.

The rise in the number of deaths and the death-rate from cancer are disappointing, especially as the death-rate had shown a tendency to decline in recent years. To some extent cancer, like heart disease, may be regarded as a mode of terminating “the allotted span.” Thus, in 1935, of the 326 total deaths from cancer, 249 occurred during the age-period 45-75 (125 of them between 65 and 75). Put in another way, it may be said that the achievement of our civilisation in increasing the average expectation of life has the disadvantage that it prolongs life to well within the “danger period” for cancer. Although we are as yet without complete knowledge of the causes of cancer and of means to prevent it, there is little doubt that more could be done to prolong the life of its victims if opportunities were given to the experts to apply treatment at earlier stages of the disease. But there are still many people who postpone far too long the attempt to seek the diagnosis of their complaint because they suspect only too well its true nature.

On the other side of the balance sheet we have a welcome reduction in the number of deaths in mothers and in the newly-born, slight reductions in the numbers of deaths from diphtheria and scarlet fever, and only one death from enteric fever. In view of the increased number of cases of enteric fever notified and considering that eight Cardiff patients were treated at the City Isolation Hospital, it is gratifying that only one death occurred, especially as the patient who died was not admitted to the Isolation Hospital. The drop of nearly 50 per cent. in the number of scarlet fever deaths corresponds with a fall to approximately the same extent in the number of scarlet fever cases. The position is less favourable with regard to diphtheria. Here a fall of approximately 33 per cent. in the number of diphtheria cases in 1935, as compared with the 1934 total, corresponds with a percentage fall in the death-rate of only about 10 per cent. Thus, although the number of cases of diphtheria in 1935 was less than in 1934, the case-mortality had risen from 4 per cent. to nearly 5 per cent.—a confirmation of the opinion I have often expressed that in Cardiff, as in many other parts of the country, there is a definite tendency to an exaltation of the virulence of the disease. *Thus, although the chances of a child contracting diphtheria to-day are less than in times of wide-spread epidemic, the risks of death, once he has acquired it and despite efficient use of all the resources of modern treatment, are relatively great. Even if he does not die, the child is exposed to a considerable amount of suffering. It seems, therefore, entirely illogical, not to say inhumane, for parents to drift on in the hope that their children may escape a painful and often fatal disease when they could make that hope into a 93·5 per cent. certainty by artificial immunization (93·5 per cent. certainty of preventing and in the remaining 6·5 per cent. a certainty of modifying the severity of the illness).*

The marked decrease in the number of deaths in newly-born infants (see “Congenital Debility, Premature Birth, Malformations, etc.,” page 8) from 147 in 1934 to 120 in 1935 corresponds with a welcome drop in the total under-one-year death-rate to 59 per 1,000 births, which more than fulfills the hope expressed in the last Annual Report that the small drop of 3 points from 77 in 1933 to 74 in 1934 might mean the beginning of a resumption of the descent in the curve representing Cardiff’s annual infant mortality rates. (In the special report on infant mortality presented in the Annual Report for 1934, it was shown that prior to 1925 the annual infant mortality rates for Cardiff had followed a descending curve parallel to a curve plotted from the annual infant mortality rates for England and Wales, but that after 1925, whereas the curve for England and Wales had continued to descend, the curve for Cardiff had been held up at a relatively high level). But although the low infant mortality rate for Cardiff in 1935 is a source of gratification, it would be premature to rejoice unduly or to assume as yet that we had achieved all our aims in the sphere of infant welfare.

K. Stouman, writing in the December, 1934, issue of the *Quarterly Bulletin of the Health Organisation of the League of Nations*, describes infant mortality as "the price of adaptation paid by each generation when entering life, just as the settlement of a new country takes its toll from its immigrants." This is a simile of peculiar aptness, because it helps us to appreciate more sympathetically the plight of the newly-born, who, like the newest settlers, are the most susceptible to the perils of their new environment. A local attempt to gain a better understanding of these perils has been made by Dr. Helena J. Webster (see pages 14-16). From Dr. Webster's study we learn that of under-one-year deaths in Cardiff in 1935, 48 per cent. occurred in the first week of life and that in this first week the first 24 hours was the most dangerous period. The fact that 60 per cent. of those dying in the first week were premature is not unexpected, the prematurity resulting in death either through an inadequate development of general vitality or through insufficient development of certain organs in the body, which being thereby unable to function efficiently, led to death from asphyxia neonatorum, bronchitis, broncho-pneumonia and jaundice.

Perhaps the most urgent problem, and certainly one of the most baffling, is the prevention of premature births. In 24 cases (nearly half of those dying in the first week) death was certified as being due to prematurity alone. In eight of them the health of the mothers had not been good. Conditions were found such as maternal heart disease, influenza and bronchitis, pleurisy, rheumatism and extreme anaemia and debility. Eighteen of the 24 mothers gave a history of one or more previous premature births or still-births, and Dr. Webster suggests that in this connection, as in cases of ante-partum haemorrhage, the question arises of a positive Wassermann reaction.

One disturbing feature of Dr. Webster's report is the statement that five out of 14 mothers who had prolonged and/or difficult labour leading to the deaths of their babies (probably from intracranial haemorrhage) had been under observation at ante-natal clinics, where their progress during pregnancy had been noted as "normal and satisfactory" and where no cause for difficulty during labour had been anticipated.

In the next paragraph we read that six mothers attended the ante-natal clinics regularly to receive special and careful attention during pregnancy for maternal toxæmia. In all six cases confinement was arranged for in a maternity hospital, but nevertheless the infants died within the first week after birth.

Finally, we are told that in 37·7 per cent. of the infant deaths considered in Dr. Webster's study, attendance had been made at the ante-natal clinics or child welfare centres or both. Experiences of this kind have led to the belief, strongly held in some quarters, that ante-natal clinics are not merely useless, but, by creating in the mothers a false sense of security, may do harm. But because a system fails in some instances, there is no reason why we should scrap it until we have found a better one, and, as Sir Ewen Maclean said at the Annual Meeting of the British Medical Association held at Oxford recently, "Judged by the age-standard of other branches of knowledge ante-natal science is young." Sir Ewen added, "Mistakes and unverified prognoses are inevitable, but experience is being gained and new facts established and recorded to afford a stable basis on which advice and treatment are being founded." Two advantages in attendance at the Cardiff ante-natal clinics are beyond dispute and for those alone the urging of a better attendance would be justified: (1) Mothers whose poor health may be attributed to faulty nutrition may be put in the way of obtaining milk and other forms of extra nourishment; (2) the Wassermann test is carried out in all cases, and by appropriate treatment decided on the result of the test illness and perhaps death in the infant may be prevented. Dr. Webster suggests that in 18 out of 24 mothers of babies dying of prematurity the Wassermann test would have been valuable and might have prevented the infants' death. Unfortunately, only four of the 18 attended the ante-natal clinics. True that these four were all Wassermann negative and true, happily, that the percentage of Wassermann positive cases is falling (from 3·1 per cent. in 1925-28 to 1·8 per cent. in 1935—see page 75) but it would have been better for the 14 mothers who did not attend to have settled the doubt for the sake both of themselves and of their babies.

(That the ante-natal clinics are growing in popularity is evidenced by the table on page 74, which shows that, in relation to the total notified births in 1935, 46·2 per cent. of the mothers attended the ante-natal clinics. The comparable figures for the previous three years are 45·9 per cent., 39·6 per cent. and 39·0 per cent. respectively).

Perhaps the most important conclusion reached by Dr. Webster is that however difficult it may be in the present state of our knowledge to prevent many infant deaths, especially those in the newly-born, there is one group of deaths that result definitely from neglect by the mothers themselves, namely, the deaths from respiratory diseases. Dr. Webster says, "It is felt that in these cases the all-important factor is the standard of care and attention that the mother herself is able to give the child in the early stages of the condition. Too often the child appears to have been seriously ill before any medical advice was sought. In many of the cases there was a history of a 'chesty cough' for two or three days, the child then becoming definitely ill and the condition becoming fatal within a week." But then in the very next sentence Dr. Webster provides an excuse for some of these neglectful mothers: "In a number of cases the fact was recorded that the mother herself appeared to be in a very poor state of health." These mothers themselves were too ill to care.

As regards maternal mortality figures, it can be shown that it was wise to adopt a similar attitude of expectancy in the face of the alarming rise from 4·94 maternal deaths per 1,000 births in 1933 to 7·70 maternal deaths per 1,000 births in 1934. The rate for 1935 has fallen to 4·73, which is also below the average for the ten-year period 1925-1934. In this sphere also there is still much to be done—probably no more and no less than remains to be done in other parts of England and Wales—but whereas we might have taken alarm over the relatively high figure for 1934 (7·70) it is now shown that there is no cause for undue pessimism in regard to maternal mortality in Cardiff. When the time comes for the presentation of the next Annual Report, we shall have had working for a full year a new and extended scheme of milk benefit for expectant and nursing mothers and for infants and children. It will be interesting to see whether the working of this new scheme will have coincided with any further lowering of the infant and maternal mortality rates.

The approval by the Council of the extended milk scheme was obtained towards the close of 1935. There is no doubt that the growth of public opinion in favour of it was fostered by the report published in *The British Medical Journal* for 22nd June, 1935, by Dr. Arthur G. Watkins, the Cardiff Children's Specialist, on the results of his investigations made with the assistance of the Public Health Departments of Cardiff and Rhondda into the nutritional states of the pre-school children in those areas. Dr. Watkins' conclusions were as follows:—

1. That true malnutrition is not common in the areas examined.
2. That there is no single cause of malnutrition.
3. That endogenous factors have a greater immediate effect on the health than exogenous factors.
4. That an unsatisfactory economic state probably tends to promote the occurrence of ill-health and to prevent adequate convalescent environment and nourishment.

For a number of years' generous provision has been made by the local Education Authority for the supply of dinners and milk rations to children. The Health Committee's new scheme makes it possible for free milk to be supplied to larger numbers of expectant and nursing mothers, and to children from infancy to the time of going to school, when they may qualify for a continuance of free milk under the Education Authority's scheme.

There is now available information from a recent report of the Milk Marketing Board which, considered in relation to schemes of free milk supply by local authorities, raises a point certainly of sociological interest, and possibly of national importance. *The Milk Marketing Board report shows that although the local authority schemes for free milk are obviously designed to increase the consumption of milk, at least among certain sections of the population, the sale of milk for human consumption in Cardiff, as well as in South Wales generally, has gone down considerably during the past two years.* It is difficult to explain the apparent contradiction of facts without assuming the possibility that individual families—unconsciously perhaps—have come to believe that their responsibility to buy any milk at all for themselves is at an end and that, for example, if before beginning to benefit by the local authorities' free milk schemes they purchased, say 1½ pints of milk a day, now they will make do on the quantity of milk a day, say 1 pint, they get from the local authority.

Deaths from Road Accidents.—Any decrease, even though it be only of one (35 to 34) is welcome (see page 9). The number of pedestrians killed (20) was the same as in 1934. For a number of years the section of the Annual Report dealing with road deaths has immediately preceded that which discusses maternal mortality. In 1935 the number of maternal deaths was 16—less than half the number of road deaths. Probably a similar numerical comparison could be made in most populous areas throughout the country, yet there can be little doubt over which set of mortality figures the public displays the deeper concern.

Diphtheria Immunization.—The scheme described by the Deputy Medical Officer of Health on pages 20-21 could hardly be more complete. All that lacks is the fullest possible use by the public of the facilities provided. The measure of that lack is largely an index of the extent to which the "preventive idea" has failed to grip the public imagination. Between 4,000 and 5,000 children out of a total child population of approximately 28,000 were found during 1935 naturally to be, or made artificially to be, immune to diphtheria. No reason for discouragement is found in the fact that the percentage of children immunized represents a figure below that considered necessary by epidemiologists for the complete eradication of diphtheria by artificial means. The important thing is to establish an efficient immunization scheme in the midst of other organised public health activities, and the public will come to use it increasingly, just as they do the other facilities provided for them by local authorities, e.g., clinics and general hospitals.

Food Poisoning.—Use of the power of notification provided by the Cardiff Corporation Act, 1930, brought to the notice of the department in 1935 some interesting minor epidemics of food poisoning, all attributable to *Bacillus Aertrycke* (see page 22). The department maintains a kind of "flying squad" ready at a moment's notice to make full investigation of such cases. Notification of food poisoning, when adequately used, is an important ancillary to systematic food inspection in the protection of the public from unwholesome food.

Cardiff Isolation Hospital.—Dr. G. Emrys Harries, Medical Superintendent, reports on pages 25-31. Attention is drawn again to the table on page 27, which displays strikingly the advantages of early adequate serum treatment of diphtheria. One day's delay (between the third and fourth day) makes a 14 per cent. reduction in the prospects of recovery. The necessity for heroic treatment and urgent diagnosis in a disease of unabated virulence could be removed by a wholesale realisation on the part of parents of the ease and efficiency of diphtheria immunization.

As many cases as possible of puerperal infection occurring in Cardiff are transferred to the Isolation Hospital. Figures showing the case mortality of puerperal fever treated there are available for several years. Although the relatively small number of cases diminishes the statistical value of these figures, they are reproduced below in comparison with figures kindly supplied by the Medical Officers of Health of the County of London and of Glasgow.

Treatment of Puerperal Fever in Local Authority Hospitals :—

Year	Case Mortality per cent.		
	Cardiff	London	Glasgow
1932	7·1	11·4	12·2
1933	Nil.	12·1	13·6
1934	Nil.	9·5	14·4
1935	19·3	6·8	12·8

Lord Pontypridd Hospital (Dulwich House) and the Rheumatism Supervisory Scheme.—The annual report on pages 31-37 by Dr. Cecil W. Anderson, who is Medical Superintendent of the Hospital and is in charge of the supervisory scheme, leaves no doubt as to his enthusiasm for the work entrusted to him. Of special interest to medical men will be the account of the new classification of heart conditions adopted by Dr. Anderson in 1935 (page 32) and the clinical study on pages 34-37 deserves circulation amongst all working in the field of juvenile rheumatism.

Co-ordination of rheumatism supervision in Cardiff is effected by associating with the scheme, in a consultative capacity, Dr. Arthur G. Watkins, who is in charge of the children's wards at Llandough (Municipal) Hospital and at Cardiff Royal Infirmary, where he also takes the children's out-patient department. Both at Llandough Hospital and at Cardiff Royal Infirmary a number of Dr. Watkins' cases are of juvenile rheumatism. By occasional visits to Lord Pontypridd Hospital and by conducting a weekly clinic under the Local Authority's supervisory scheme, he is able to complete, as it were, "a bird's eye view" of juvenile rheumatism in Cardiff.

Llandough Hospital.—Even before it was opened to admit patients, Llandough Hospital had become well known—and to many people far beyond the confines of Cardiff—as a place of marble halls and fabulous expense. From the report for 1935 submitted by Dr. David G. Morgan (pages 37-51) it is evident that those on the staff of the hospital are determined to make it even more famous for the quality of the work carried out there. Special features in the report are Dr. Morgan's own introduction, and the accounts of the Nurses' Training School, the Social Service (Almoner's) Department and Hospital Library Service. The hospital statistics for 1935 (page 42) indicate an increased "turnover" of patients.

Maternity and Child Welfare.—To meet numerous requests from members of the Maternity and Child Welfare Sub-Committee, the Home Help scheme, which in Cardiff has been operating since 1921, is explained on page 80 by Mrs. L. Huntley, the Supervisor of Health Visitors and School Nurses.

Sanitary Services.—On pages 85-91 and pages 108-125 the Chief Sanitary Inspector, Mr. W. G. Pyatt, summarises the efforts of the department to maintain for the inhabitants of Cardiff a wholesome food supply and a healthy environment. Of special importance is the section (pages 108-116) dealing with housing, which describes the progress made in executing 17 clearance orders confirmed by the Minister of Health. The demolition of the houses concerned and the rehousing of their inhabitants are now almost completed.

The evil of bug infestation is being tackled energetically (even without the use of the hydrogen cyanide gas so greatly favoured by many local authorities). The principle underlying the system used in Cardiff is to train the tenants to carry out their own disinfection. The results are not so dramatically sudden as those obtained by large-scale fumigation with hydrogen cyanide gas, but it is claimed that in the long run a greater degree of *permanent* freedom from vermin will have been achieved.

The policy of maintaining wholesome food supplies has long been pursued with enthusiasm by the Cardiff Corporation, special powers to that end having been obtained in local Acts of Parliament. The successful administration of these powers, as well as of those provided by national legislation, is evidenced by the relatively few cases of food poisoning occurring in Cardiff. Close and cordial co-operation exists between food traders and officers of the Public Health Department, and it is from an understanding of the technicalities of the dairy trade that Mr. Pyatt expresses doubts (page 90) as to the practicability of the provision laid down in the Milk (Special Designations) Order, 1936, that graded milk must be kept in separate compartments from other milk at all times, including those times when it is treated or bottled. He fears that insistence on the carrying out of this provision may reduce almost to vanishing point the sale of Tuberculin Tested milk. Apart from this, it is regretted that there appears to be in some quarters a tendency to foster prejudice against Pasteurised milk.

Food and Drugs.—The Public Analyst, Mr. S. Dixon, M.Sc., F.I.C., reports on his work on pages 91-107. Of special interest is his discussion of milk standards. He urges that revision of the Sale of Milk Regulations, 1901, is long overdue and that in any new regulations the Hortvet freezing-point test—for the presence of added water in milk—should receive recognition just as the methylene blue test has been recognised in the new Milk (Special Designations) Order as a test for clean milk.

Atmospheric Pollution.—Since January, 1935, to test allegations against the purity of the atmosphere in Splott, an apparatus has been set up in a central position in that ward and observations have been taken there regularly to compare with similar observations already taken at the City Hall. The results are tabulated on page 126, but it is considered worth while reproducing here (also from page 126) the conclusions of Mr. J. H. Sugden, M.Sc., F.I.C., Chemist at the Cardiff and County Public Health Laboratory. Mr. Sugden's conclusions are as follows :—

- (a) The fall from winter to summer and the rise from summer to winter are very similar at both stations and are presumably due chiefly to domestic smoke.
- (b) The excess of SO_2 at Splott over that at the City Hall keeps at a fairly constant level and is not, under present industrial conditions, greatly affected by varying winds.
- (c) It may be that there is a counterbalancing effect between SO_2 carried from the more populated area when the wind is towards the works and SO_2 from the works when the wind is in that direction.

These conclusions, with Mr. Sugden's considered opinion that "the figures are not abnormally high for either Splott or City Hall," exonerate Splott from the charge of excessive atmospheric (especially excessive sulphur) pollution. They deserve wide publicity amongst those applicants for Council houses who, because of the reputation of Splott (now shown to be undeserved) for unhealthy atmospheric conditions, are apt to refuse the offer of houses on the Council's estates in that locality.

PORT SANITARY SERVICE.

In last year's preface reference was made to unhealthy conditions of crews' spaces—a theme that was further developed in a paper entitled "Slum Clearance at Sea" which was read in June of this year before the Association of Port Sanitary Authorities of the British Isles. The diagram on page 141 shows that in 1935 there was little or no improvement in the hygiene of crews' spaces in ships inspected at the Port of Cardiff.

To facilitate the work of deratisation at the Port, leaflets giving full information about it have been distributed to (a) shipowners and shipping agents and (b) fumigation contractors. The leaflets are reproduced on pages 134-137. Of recent years there has been a considerable reduction in the number of rats found in ships visiting the Port of Cardiff.

SCHOOL MEDICAL SERVICE.

The transfer of the Central Orthopaedic Clinic from Park Place to City Lodge was a much needed improvement in the orthopaedic service and is greatly appreciated by both the public and staff. The new Clinic is housed in the same building as the new Accident Clinic, which has been described fully in the introductory portion of this preface.

From year to year figures are given as to the nutritional state of school children. A detailed inquiry which has been set on foot with the object of discovering the sociological facts behind those figures.

PUBLICATIONS.

The following publications by members of the staff appeared in 1935 :—

“ A Series of Outbreaks of Food Poisoning in Cardiff during a Period of Four Months ” by Dr. C. W. Anderson (with others). *The Lancet*, 2nd February, 1935.

“ Some Features of a Modern General Hospital ” by Dr. D. G. Morgan, a paper read at a Sessional Meeting of the Royal Sanitary Institute at Cardiff on 10th May, 1935. *Journal of the Royal Sanitary Institute*, July, 1935.

“ The Sanitary Inspector of To-day ” by Mr. W. G. Pyatt, a paper read at a Sessional Meeting of the Royal Sanitary Institute at Cardiff on 10th May, 1935. *Journal of the Royal Sanitary Institute*, July, 1935.

“ The Administration of the Food and Drugs (Adulteration) Act, 1928 ” by Mr. W. G. Pyatt, a paper read at the Congress of the Royal Sanitary Institute at Bournemouth, July, 1935. *Journal of the Royal Sanitary Institute*, December, 1935.

J. GREENWOOD WILSON.

PUBLIC HEALTH DEPARTMENT,
CITY HALL, CARDIFF,
September, 1936.

CITY OF CARDIFF.

PUBLIC HEALTH DEPARTMENT.

EXPENDITURE 1934-35.

Service	Total Expenditure	Income (Excluding Government Grants)	Net Cost of Service
(1) HEALTH, ETC., SERVICES—	£	£	£
Sanitary Expenses	14,122	665	13,457
Food and Drugs (Adulteration) Act	1,149	146	1,003
Diseases of Animals Acts	410	40	370
Midwives Acts	23	—	23
Shops Acts	535	4	531
Meteorological Station	52	—	52
	16,291	855	15,436
(2) PREVENTION AND TREATMENT OF TUBERCULOSIS	30,132	446	29,686
(3) MATERNITY AND CHILD WELFARE SERVICE	20,076	2,958	17,118
(4) VENEREAL DISEASES	5,622	—	5,622
(5) SCHOOL MEDICAL SERVICE	13,460	1,446	12,014
(6) MENTAL DEFICIENCY SERVICE	13,241	457	12,784
(7) PORT SANITARY SERVICE	4,494	1,055	3,439
(8) HOSPITALS ;—			
City Isolation Hospital	25,368	1,256	24,112
Caerau Smallpox Hospital	2,188	914	1,274
Lord Pontypridd Hospital (Dulwich House)*	1,844	1,844	—
Llandough Hospital	73,035	10,008	63,027
Totals	£205,751	£21,239	£184,512

The School Medical Service and the Port Sanitary Service still rank for Government grants on a percentage basis, although the grants are not shown in the above statement.

Contributions out of Government funds in respect of certain other services on which percentage grants were made prior to April, 1930, are now merged in the block grant to the Council.

* Maintained out of proceeds of the Lord Pontypridd bequest.

GENERAL HEALTH SERVICE.

I.—SUMMARY OF GENERAL AND VITAL STATISTICS.

Area (acres) :—

Including inland water, foreshore and Flat Holm	....	....	13,628
Excluding foreshore and Flat Holm	....	....	11,984
Excluding inland water, foreshore and Flat Holm	....	....	11,580
Population (Census, 1931)	....	....	223,589
Population (Estimated, mid-1935)	....	....	221,400
Number of persons per acre (exclusive of foreshore and Flat Holm)			18·4
Estimated number of inhabited houses	....	....	46,000
Estimated number of inhabited houses per acre (exclusive of foreshore and Flat Holm)	....	....	3·84
Estimated average number of persons per occupied house	....	....	4·8
Rateable value	....	....	£1,846,520
Estimated product of a penny rate	....	....	£7,000
Live births	....	3,376	Birth-rate per 1,000 15·2
Deaths	....	2,721	Death-rate per 1,000 12·3
Excess of births over deaths	....	Males, 164 ; Females, 491 ; Total, 655	
Deaths under 1 year	....	199	Rate per 1,000 births 59

Deaths of women in child-birth :—

	<i>Number.</i>	<i>Rate per 1,000 Live Births.</i>	<i>Rate per 1,000 Total Births.</i>
Puerperal sepsis	10	2·96	2·81
Other puerperal causes	6	1·77	1·69
Totals	16	4·73	4·50

Deaths from various causes :—

	<i>Number.</i>	<i>Death-rate per 1,000</i>
Typhoid fever	1	0·00
Measles	28	0·12
Scarlet fever	2	0·01
Whooping cough	11	0·05
Diphtheria...	19	0·08
Tuberculosis of respiratory system	216	0·97
Other tuberculous diseases	49	0·22
Cancer	326	1·47

II.—AREA AND POPULATION.

The total area of Cardiff (including inland water, foreshore and Flat Holm) is 13,628 acres; excluding inland water, the foreshore and Flat Holm it is 11,580 acres.

According to the Census of 1931, the population of Cardiff was 223,589 (males 107,309, females 116,280) and the Registrar-General's estimate of the population for mid-1935 was 221,400.

The area and population of Cardiff are shown in municipal wards and registration sub-districts in the following table :—

Localities	Area in Acres (Land and inland water)	Population	
		Enumerated 1931	Estimated 1935
Adamsdown	1,320	17,209	16,104
Cathays	338	16,566	15,876
Gabalfa	1,463	18,703	19,693
Central	535	13,544	12,255
South	1,073	13,635	13,676
Central Registration Sub-District	4,729	79,657	77,604
Plasnewydd	233	15,056	14,265
Penylan	1,765	14,146	15,000
Roath	754	15,792	15,219
Splott	1,912	20,898	21,411
East Registration Sub-District	4,664	65,892	65,895
Llandaff	2,719	27,762	30,342
Canton	247	17,273	16,132
Grangetown	949	15,403	14,680
Riverside	320	17,602	16,747
West Registration Sub-District	4,235	78,040	77,901
Whole City	13,628	223,589	221,400

III.—BIRTHS.

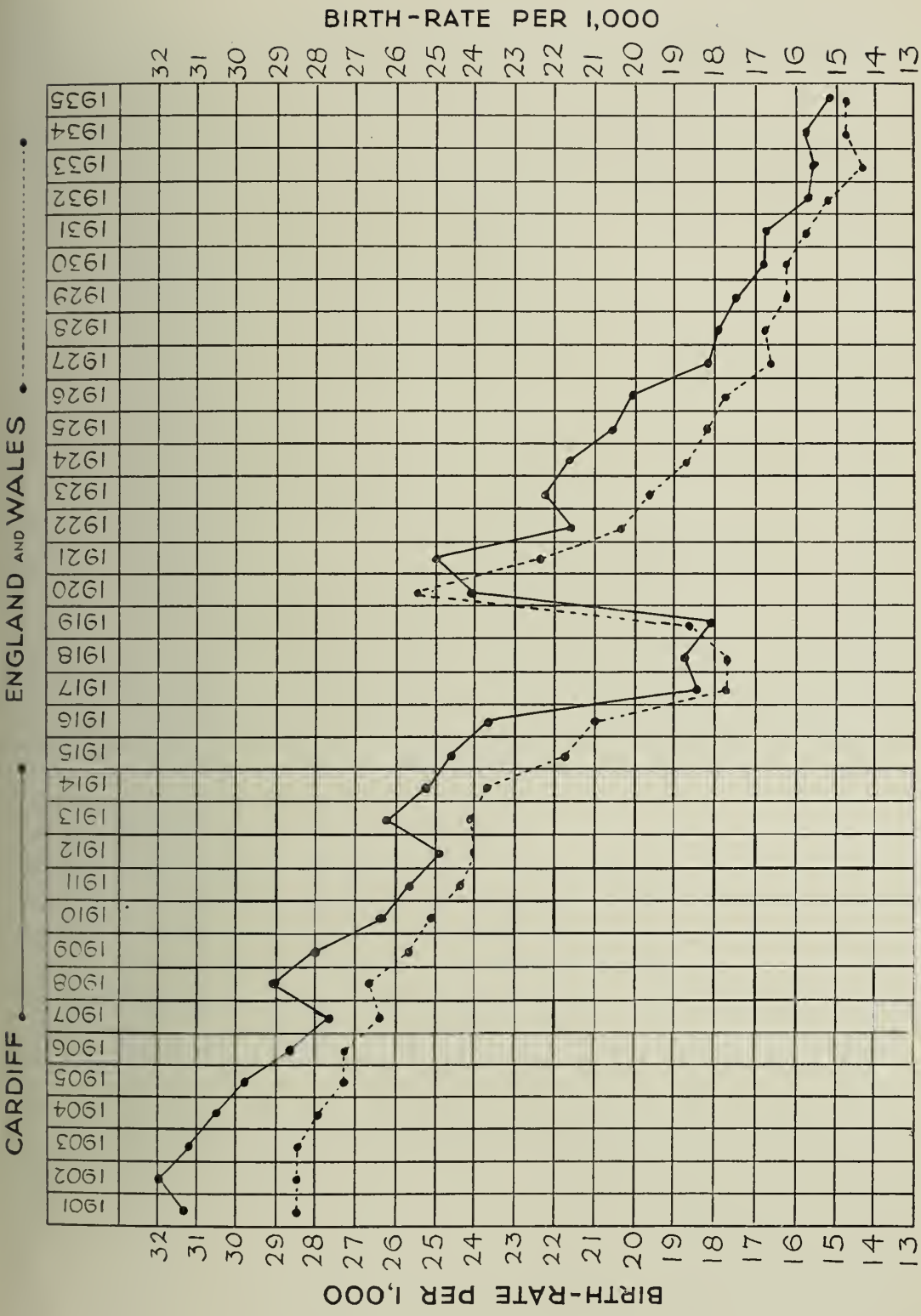
The numbers of births and still-births registered during 1935 and allocated to Cardiff, sub-divided according to sex and legitimacy, are shown in the following tables :—

Births.

	Legitimate	Illegitimate	Totals
Males	1,629	60	1,689
Females	1,617	70	1,687
Totals	3,246	130	3,376

Still-births.

	Legitimate	Illegitimate	Totals
Males	83	4	87
Females	87	4	91
Totals	170	8	178



The number of live births belonging to, but registered outside, Cardiff was 33 (19 males and 14 females), whilst 350 births (185 males and 165 females) and 43 still-births (20 males and 23 females) belonging to other districts were registered in Cardiff. In the net figures given above allowance has been made for these corrections.

The 3,376 registered births were equivalent to a birth-rate of 15·2 per 1,000 of the population, as compared with 15·8 per 1,000 in 1934. The rates for legitimate births and illegitimate births were 14·6 and 0·6 per 1,000 respectively. The birth-rate for each of the last ten years was as follows :—

<i>Year.</i>						<i>Birth-rate per 1,000.</i>
1926	....	....	....	....	....	20·1
1927	....	....	....	....	....	18·1
1928	....	....	....	....	....	18·0
1929	....	....	....	....	....	17·5
1930	....	....	....	....	....	16·9
1931	....	....	....	....	....	16·8
1932	....	....	....	....	....	15·7
1933	....	....	....	....	....	15·5
1934	....	....	....	....	....	15·8
1935	....	....	....	....	....	15·2

The 178 registered still-births constituted a rate of 50 per 1,000 total (live and still) births, as compared with 51 in 1934.

The following is a comparison of the birth-rate for 1935 and the preceding ten years with the birth-rates in England and Wales and the 121 Great Towns for 1935 :—

						<i>Birth-rate per 1,000.</i>
CARDIFF	{ 1935....	....	....	....	....	15·2
	{ 1925-1934	....	....	....	....	17·5
England and Wales, 1935	....	....	....	....	....	14·7
121 Great Towns, 1935	....	....	....	....	....	14·8

The birth-rates for 1935 in municipal wards and registration sub-districts were as follows :—

						<i>Birth-rate per 1,000</i>
<i>Localities</i>						
Adamsdown	....	....	....	....	....	16·3
Cathays	....	....	....	....	....	14·7
Gabalfa	....	....	....	....	....	14·2
Central	....	....	....	....	....	13·1
South	....	....	....	....	....	19·0

Central Registration Sub-District	....	....	15.4
Plasnewydd	....	....	11.6
Penylan	....	....	14.0
Roath	....	....	14.6
Splott	....	....	19.5
East Registration Sub-District	....	....	15.4
Llandaff	....	....	15.7
Canton	....	....	13.0
Grangetown	....	....	15.8
Riverside	....	....	11.5
West Registration Sub-District	....	....	14.3
Whole City	....	....	15.2

IV.—DEATHS.

Deaths from All Causes.—The total number of deaths from all causes and at all ages registered during the year and allocated to Cardiff, after allowing for the necessary corrections, was 2,721 (1,525 males and 1,196 females). The death-rate per 1,000 of the population was 12.3. The total number of deaths registered in Cardiff was 2,875, but 520 of these were of non-residents, which occurred mainly in hospitals and nursing homes, and 366 deaths of residents of Cardiff occurred and were registered in other areas—including Penarth, where Llandough Hospital is situated. Allowance has been made for these outward and inward transferable deaths in arriving at the net number. Of the 2,721 deaths belonging to Cardiff, 1,133, or 41.6 per cent., occurred in public institutions or nursing homes, as compared with 39.9 per cent. in 1934 and 37.5 in 1933. The death-rate for each of the last ten years was as follows :—

<i>Year.</i>	<i>Death-rate per 1,000.</i>
1926	10.8
1927	12.6
1928	11.7
1929	12.9
1930	11.4
1931	12.8
1932	12.5
1933	13.5
1934	12.3
1935	12.3

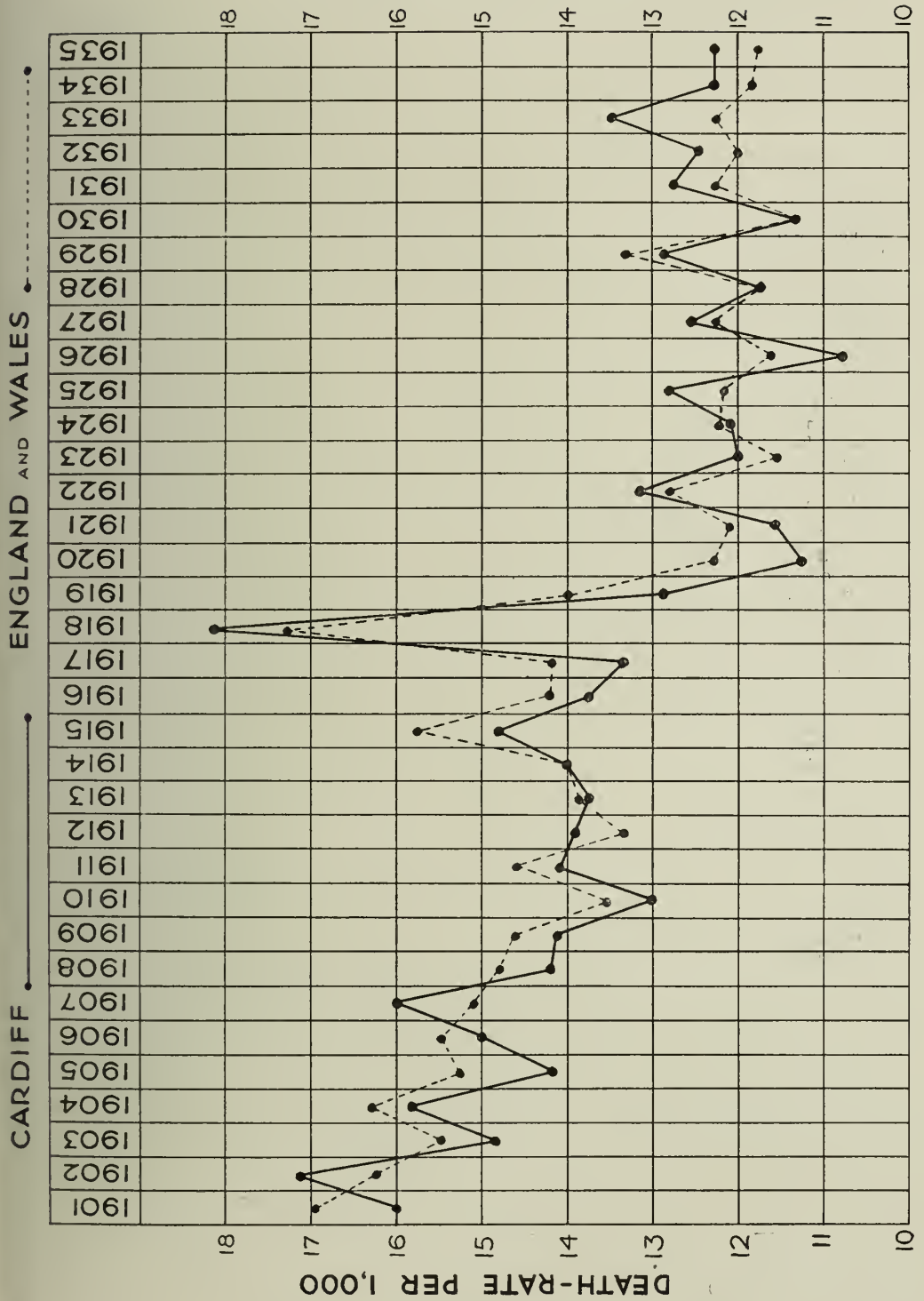
As stated above, the death-rate for 1935 was 12·3 per 1,000. In comparing the death-rate with that for England and Wales and other towns, however, it is necessary to make allowance for differences in the sex and age groups of the population as compared with those for England and Wales. In the following statement, in which the death-rate for Cardiff in 1935 is compared with the rate for the preceding ten years and with the rates for England and Wales and the 121 Great Towns in 1935, the necessary allowance has been made by multiplying the death-rates for Cardiff and the 121 Great Towns by the appropriate factors :—

				<i>Death-rate per 1,000.</i>
CARDIFF	{ 1935....	....	....	13·0
	{ 1925-34	....	....	13·0
England and Wales, 1935	....	....	....	11·7
121 Great Towns, 1935	....	....	....	12·4

The death-rates for 1935 in municipal wards and registration sub-districts were as follows :—

Localities				<i>Death-rate per 1,000</i>
Adamsdown	....	....	....	15·7
Cathays	....	....	....	13·6
Gabalfa	....	....	....	9·0
Central	....	....	....	14·7
South	....	....	....	13·4
Central Registration Sub-District	....	....	....	13·0
Plasnewydd	....	....	....	12·8
Penylan	....	....	....	12·0
Roath	....	....	....	11·9
Splott	....	....	....	12·2
East Registration Sub-District	....	....	....	12·2
Llandaff	....	....	....	8·6
Canton	....	....	....	14·0
Grangetown	....	....	....	13·2
Riverside	....	....	....	13·9
West Registration Sub-District	....	....	....	11·7
Whole City	....	....	....	12·3

DEATH-RATE PER 1,000



The following table, compiled from figures supplied by the Registrar-General, shows the causes of death at various ages during 1935 :—

CAUSES OF DEATH	ALL AGES			AGE PERIODS								
	M.	F.	Totals	Under 1 yr.	1-2 yrs.	2-5 yrs.	5-15 yrs.	15-25 yrs.	25-45 yrs.	45-65 yrs.	65-75 yrs.	75 years and upwards
Typhoid and Paratyphoid Fevers	1	—	1	—	—	—	1	—	—	—	—	—
Measles	19	9	28	4	12	8	2	1	1	—	—	—
Scarlet Fever	—	2	2	—	—	—	2	—	—	—	—	—
Whooping Cough	4	7	11	5	3	2	1	—	—	—	—	—
Diphtheria	11	8	19	—	—	10	9	—	—	—	—	—
Influenza	12	20	32	2	1	—	2	—	2	5	12	8
Encephalitis Lethargica	—	1	1	—	—	—	—	—	—	1	—	—
Cerebro-Spinal Fever	1	2	3	1	—	1	—	1	—	—	—	—
Tuberculosis of Respiratory System	130	86	216	1	—	1	5	55	92	54	7	1
Other Tuberculous Diseases	20	29	49	5	5	7	10	6	13	3	—	—
Syphilis	7	—	7	1	—	—	—	—	—	5	1	—
General Paralysis of the Insane, Tabes Dorsalis	9	1	10	—	—	—	—	—	2	7	1	—
Cancer, Malignant Disease	178	148	326	1	—	—	—	3	29	124	125	44
Diabetes	14	22	36	—	—	—	—	2	5	9	11	9
Cerebral Haemorrhage, etc.	29	57	86	—	—	—	—	—	5	28	26	27
Heart Disease	387	304	691	—	—	—	—	11	37	171	222	250
Aneurysm	9	—	9	—	—	—	—	—	—	6	3	—
Other Circulatory Diseases	103	77	180	—	—	—	—	—	3	45	72	60
Bronchitis	37	37	74	7	1	1	—	1	1	12	17	34
Pneumonia (All Forms)	86	46	132	20	14	9	6	8	15	33	12	15
Other Respiratory Diseases	7	9	16	—	1	1	—	—	3	7	2	2
Peptic Ulcer	20	8	28	—	—	—	—	1	6	15	6	—
Diarrhoea, etc.	24	10	34	19	3	1	1	1	2	1	2	4
Appendicitis	14	4	18	—	—	1	1	—	4	7	4	1
Cirrhosis of Liver	3	4	7	—	—	—	—	—	1	4	2	—
Other Diseases of Liver, etc.	6	7	13	—	—	—	—	1	—	4	6	2
Other Digestive Diseases	37	17	54	3	1	—	1	—	8	20	12	9
Acute and Chronic Nephritis	51	55	106	—	1	—	1	3	11	27	37	26
Puerperal Sepsis	—	10	10	—	—	—	—	1	9	—	—	—
Other Puerperal Causes	—	6	6	—	—	—	—	—	6	—	—	—
Congenital Debility, Premature Birth, Malformations, etc.	69	51	120	115	—	2	2	—	1	—	—	—
Senility	24	38	62	—	—	—	—	—	—	—	9	53
Suicide	15	8	23	—	—	—	—	1	6	11	3	2
Other Violence	68	21	89	3	1	4	13	9	20	11	17	11
Other Defined Diseases	129	92	221	12	3	2	13	15	31	63	46	36
Causes ill-defined or unknown	1	—	1	—	—	—	—	1	—	—	—	—
All Causes	1,525	1,196	2,721	199	46	50	70	121	313	673	655	594

Cancer.—There was a slight increase in the death-rate from cancer, or malignant disease, compared with the death-rate for the previous year. The death-rates for 1935, compared with the death-rates for previous years, were as follows :—

	Death-rate per 1,000		
	Males	Females	Both Sexes
1935	1·67	1·29	1·47
1934	1·49	1·24	1·34
1925-1934	1·23	1·30	1·27

The deaths from cancer during 1935 are analysed according to age, sex and localisation of the disease in the following table :—

Cancer— Malignant Disease	Under 15 years		15-25 years		25-45 years		45-65 years		65-75 years		75 years and upwards		All Ages		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Both Sexes
Buccal Cavity and Pharynx	—	—	1	—	—	—	4	3	5	2	2	1	12	6	18
Digestive Organs and Peritoneum	—	—	1	—	8	3	33	31	45	34	21	7	108	75	183
Respiratory Organs	—	—	—	—	5	—	6	1	7	1	—	—	18	2	20
Uterus	—	—	—	—	—	5	—	14	—	3	—	1	—	23	23
Other Female Genital Organs	—	—	—	—	—	1	—	3	—	2	—	—	—	6	6
Breast	—	—	—	—	—	2	—	11	—	8	—	2	—	23	23
Male Genito-urinary Organs	—	—	—	—	1	—	5	—	11	—	7	—	24	—	24
Skin	—	—	—	—	—	—	1	—	1	1	—	1	2	2	4
Other or Unspecified Organs	—	1	—	1	2	2	7	5	3	2	2	—	14	11	25
Totals	—	1	2	1	16	13	56	68	72	53	32	12	178	148	326

Deaths from Road Accidents.—The number of deaths from violence (excluding suicide) and the number and proportion of these due to road accidents in each year since 1923 are shown in the following table :—

Year	Total Deaths from Violence (excluding Suicide)	Deaths from Road Accidents	
		Number	Percentage
1923	100	14	14·0
1924	97	21	21·6
1925	91	23	25·3
1926	107	17	15·9
1927	103	20	19·4
1928	103	26	25·2
1929	98	16	16·3
1930	98	29	29·6
1931	93	30	32·3
1932	110	31	28·2
1933	88	26	29·5
1934	90	35	38·9
1935	89	34	38·2

The deaths from road accidents in 1935 are analysed in the following table to show the type of vehicle and the class of person involved :—

Vehicles	Fatal Accidents	Persons Killed					Totals
		Motor Cyclists	Passen- gers	Pedal Cyclists	Drivers	Pedes- trians	
Heavy motor vehicles	10	—	2	—	2	8	12
Light motor cars	13	—	—	—	2	11	13
Motor cycle	1	—	—	—	—	1	1
Pedal cycle	1	—	—	1	—	—	1
Heavy motor vehicle and pedal cycle	1	—	—	1	—	—	1
Light motor car and motor cycle	1	1	1*	—	—	—	2
Light motor cars and pedal cycles	2	—	—	2	—	—	2
Horse-drawn vehicle and pedal cycle	1	—	—	1	—	—	1
Horse-drawn vehicle and motor cycle	1	1	—	—	—	—	1
Totals	31	2	3	5	4	20	34

* Pillion rider.

Maternal Mortality.—The number of deaths due to puerperal sepsis was 10 and the number due to other puerperal causes 6, a total of 16, corresponding to rates of 4.73 per 1,000 live births and 4.50 per 1,000 total live and still-births respectively. The maternal death-rate has varied during the ten years 1926-1935 as follows:—

Year	Death-rate per 1,000 Live Births		
	Puerperal Sepsis	Other Puerperal Causes	Total
1926	1.32	3.97	5.29
1927	1.71	2.20	3.91
1928	2.44	3.42	5.86
1929	0.76	2.80	3.56
1930	2.64	2.64	5.28
1931	1.85	1.59	3.44
1932	1.14	4.28	5.42
1933	1.45	3.49	4.94
1934	3.42	4.28	7.70
1935	2.96	1.77	4.73

In the following table the death-rate of women in child-birth for 1935 is compared with the death-rate for the preceding ten years and with the death-rates for 1935 in England and Wales and in the 121 Great Towns:—

	Deaths of Women in Child-birth per 1,000 Live Births		
	Puerperal Sepsis	Other Puerperal Causes	Total
CARDIFF { 1935....	2.96	1.77	4.73
{ 1925-1934	1.83	3.05	4.88
England and Wales, 1935	1.68	2.42	4.10
121 Great Towns, 1935	1.57	2.13	3.70

The following table shows the causes of the 16 deaths in age periods:—

Causes of Death	Age Periods			Totals
	15-25 years	25-35 years	35-45 years	
Post-abortion sepsis	—	2	1	3
Ectopic gestation	—	—	1	1
Puerperal haemorrhage	—	—	1	1
Puerperal sepsis not returned as post-abortion	1	6	—	7
Puerperal albuminuria and convulsions	—	1	1	2
Other accidents of childbirth	—	2	—	2
Totals	1	11	4	16

Infant Mortality.—The number of deaths under one year of age was 199. Of these, 194 were deaths of legitimate infants and 5 were of illegitimate infants. The infant mortality rate was 59 per 1,000 live births (legitimate 60 and illegitimate 38), which is the lowest rate ever recorded in Cardiff. The rate for each of the past ten years was as follows :—

<i>Year.</i>				<i>Deaths under 1 year per 1,000 Births.</i>
1926	....	....	....	60
1927	....	....	....	80
1928	....	....	....	77
1929	....	....	....	84
1930	....	....	....	72
1931	....	....	....	77
1932	....	....	....	76
1933	....	....	....	77
1934	....	....	....	74
1935	....	....	....	59

The infant mortality rate for 1935, compared with the rate for the preceding ten years and with the rates in England and Wales and the 121 Great Towns for 1935, was as follows :—

		<i>Deaths under 1 year per 1,000 Births.</i>
CARDIFF	{ 1935	59
	{ 1925-1934	77
England and Wales, 1935	....	57
121 Great Towns, 1935	....	62

The infant mortality rates for 1935 in municipal wards and registration sub-districts were as follows :—

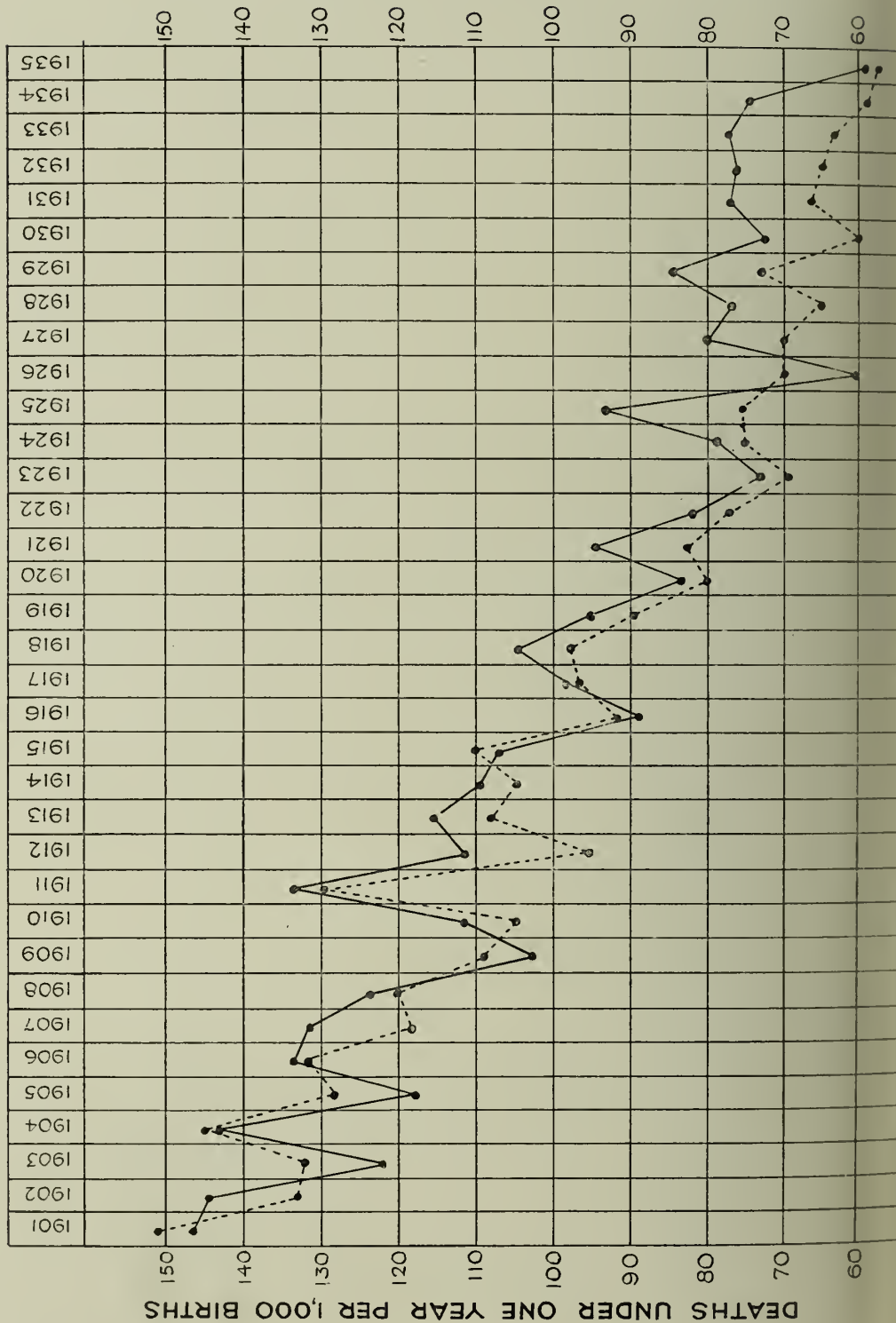
<i>Localities</i>				<i>Deaths under 1 year per 1,000 Births</i>
Adamsdown	....	....	....	49
Cathays	....	....	....	81
Gabalfa	....	....	....	57
Central	....	....	....	49
South	....	....	....	54
Central Registration Sub-District	....	....	....	58
Plasnewydd	....	....	....	36
Penylan	....	....	....	42
Roath	....	....	....	49
Splott	....	....	....	64
East Registration Sub-District	....	....	....	52
Llandaff	....	....	....	73
Canton	....	....	....	66
Grangetown	....	....	....	60
Riverside	....	....	....	77
West Registration Sub-District	....	....	....	70
Whole City	....	....	....	59

INFANT MORTALITY 1901 - 1935

CARDIFF

ENGLAND AND WALES

DEATHS UNDER ONE YEAR PER 1,000 BIRTHS



The deaths from various causes under one year of age in several age periods during 1935, compiled from figures supplied by the Registrar-General, are shown in the following table :—

Causes of Death	Under 1 week	1—2 weeks	2—3 weeks	3—4 weeks	Total under 4 weeks	4 weeks —3 months	3—6 months	6—9 months	9—12 months	Totals
Measles	—	—	—	—	—	—	1	—	3	4
Whooping Cough	—	—	—	—	—	1	1	1	2	5
Diphtheria	—	—	—	—	—	—	—	—	—	—
Influenza	—	—	—	—	—	1	1	—	—	2
Tuberculosis of Nervous System	—	—	—	—	—	—	2	—	2	4
Tuberculosis of Intestines and Peritoneum	—	—	—	—	—	—	—	—	—	—
Other Tuberculosis	—	—	—	—	—	—	—	1	1	2
Syphilis	1	—	—	—	1	—	—	—	—	1
Meningitis	—	1	—	—	1	—	—	—	—	1
Convulsions	4	1	—	2	7	—	1	—	—	8
Bronchitis	—	—	—	—	—	3	—	1	3	7
Pneumonia	1	—	—	1	2	5	5	6	2	20
Other Respiratory Diseases	—	—	—	—	—	—	—	—	—	—
Inflammation of Stomach	—	—	—	—	—	—	—	—	—	—
Diarrhoea and Enteritis	1	1	1	2	5	5	4	1	4	19
Hernia, Intestinal Obstruction	—	—	—	—	—	2	1	—	—	3
Congenital Malformation	8	1	3	1	13	2	1	—	—	16
Congenital Debility	6	—	—	—	6	3	1	1	—	11
Premature Birth	50	2	5	2	59	4	—	—	—	63
Injury at Birth	12	1	—	—	13	—	—	—	—	13
Atelectasis	6	—	—	—	6	1	—	—	—	7
Icterus	3	—	—	1	4	—	—	—	—	4
Diseases of Umbilicus	—	—	—	—	—	—	—	—	—	—
Other Diseases of Early Infancy	1	—	—	—	1	—	—	—	—	1
Suffocation in Bed	—	—	—	—	—	—	—	2	—	2
Inattention at Birth	1	—	—	—	1	—	—	—	—	1
Other forms of Violence	—	—	—	—	—	—	—	—	—	—
Other Causes	—	1	—	—	1	—	3	1	—	5
All Causes	94	8	9	9	120	27	21	14	17	199
Percentage of Total Deaths under 1 year	47·2	4·0	4·5	4·5	60·3	13·6	10·6	7·0	8·5	—

It will be seen that the proportion of infant deaths under four weeks of age was 60·3 per cent. This proportion of the total number of deaths under one year has varied during the ten years 1926-1935 as follows :—

Year.	Deaths under 4 Weeks per cent. of total Deaths under 1 Year.
1926	44·7
1927	47·7
1928	41·1
1929	43·9
1930	50·4
1931	45·2
1932	50·9
1933	45·3
1934	60·5
1935	60·3

Although there was a satisfactory decline in the infant mortality rate for 1935, the rates, as mentioned in the report for 1934, have been high for many years compared with those for England and Wales. With a view to ascertaining the reason for this, special medical investigations have been made into all deaths under one year of age since the commencement of 1935. Dr. Webster has had charge of this work and the report for the year is given below.

Report by Helena J. Webster, B.Sc., M.B., B.Ch., D.P.H., on Infant Mortality.

During the year all cases of infant deaths under the age of one year have been medically investigated. This has been done in order to obtain from the parents or guardians the fullest possible details regarding the actual cause of death and also to ascertain, whenever possible, any underlying factors regarding the health of the mother, the course of the labour, etc., which might have had some bearing in individual cases.

It is recognised that in the absence of a post-mortem examination the actual cause of death in infants cannot be stated with certainty. From investigations carried out in hospitals where post-mortem examinations are possible, it has been found that the condition of intracranial haemorrhage is much more prevalent than one would suppose from the incidence of outward symptoms—particularly in cases of premature birth—and it is probable that this condition is responsible for many cases where no definite cause of death has been stated.

No information was obtainable regarding three of the 199 deaths under one year that occurred during 1935. The following table gives an analysis of 196 of the deaths :—

Age at Death	Premature	Full-time	Totals
Under 1 week	56	38	94
1 week—4 weeks	10	16	26
1 month—3 months	10	17	27
3 months—6 months	—	20	20
6 „ —9 „	3	9	12
9 „ —1 year	—	17	17
Totals	79	117	196

As such a large proportion (48 per cent.) of the cases died under one week, they have been analysed further, as follows :—

Age at Death	Premature	Full-time	Totals
Under 1 hour	10	6	16
1 hour—24 hours	31	11	42
1 day—7 days	15	21	36
Totals	56	38	94

In the following table the causes of death in the various age groups (as modified and amended consequent upon the further inquiries) are given :—

Causes of Death	Under 1 hour		1-24 hours		1 day-7 days		1 week to 4 weeks	1 month to 3 months	3 months to 6 months	6 months to 9 months	9 months to 12 months	TOTALS
	Premature	Full-time	Premature	Full-time	Premature	Full-time						
1	2	3	4	5	6	7	8	9	10	11	12	13
Prolonged and/or Difficult Labour	2	2	2	2	2	4	—	1	—	—	—	15
Debility due to :—												
Maternal Toxaemia	1	—	3	1	—	3	1	—	—	—	—	9
" Ante-partum												
Haemorrhage	2	—	5	—	1	—	1	—	—	—	—	9
Shock	1	—	2	—	1	—	1	—	—	—	—	5
" Malnutrition and Debility	—	—	2	—	2	—	—	—	—	—	—	4
Prematurity (No obvious cause)	4	—	10	—	6	—	2	—	—	—	—	22
Deformities	—	2	2	4	1	7	5	3	2	—	—	26
Jaundice	—	—	1	—	—	1	—	2	—	—	—	4
Debility	—	2	2	1	1	3	—	—	3	—	—	12
Asphyxia Neonatorum	—	—	2	2	—	—	—	—	—	—	—	4
Cardiac Disease	—	—	—	—	—	—	—	—	—	—	1	1
Convulsions	—	—	—	1	—	1	6	2	—	—	—	10
Gastro-enteritis and Convulsions	—	—	—	—	—	—	4	5	5	3	2	19
Bronchitis and Broncho-pneumonia	—	—	—	—	1	2	1	12	6	6	11	39
Meningitis	—	—	—	—	—	—	1	—	2	2	3	8
Septic Pericarditis	—	—	—	—	—	—	2	—	—	—	—	2
Haematemesis	—	—	—	—	—	—	1	—	—	—	—	1
Surgical Conditions requiring Operation	—	—	—	—	—	—	—	2	1	—	—	3
Septicaemia	—	—	—	—	—	—	—	—	1	—	—	1
Accidental Death	—	—	—	—	—	—	—	—	—	1	—	1
Lack of Attention	—	—	—	—	—	—	1	—	—	—	—	1
Totals	10	6	31	11	15	21	26	27	20	12	17	196

It will be seen that the greater number of infants—94 out of a total of 196—died within the first week of life and that of these, 56, or approximately 60 per cent., were premature births. In these early cases inquiries were mainly directed towards ascertaining the condition of the mothers' health during pregnancy—whether any maternal conditions existed, such as toxaemia or severe malnutrition, or whether any suggested cause might be found for the many cases of ante-partum haemorrhage. Columns 2 to 7 in the preceding table give the results of these inquiries in the early cases.

Of the 14 cases of prolonged and/or difficult labour, 12 were instrumental deliveries, the actual cause of death in these cases probably being some degree of intracranial haemorrhage. Five of these 14 mothers attended ante-natal clinics and showed normal and satisfactory progress during pregnancy, no cause for difficulty during labour being anticipated.

Of the eight cases of maternal toxaemia, six were regular attenders at ante-natal clinics and were receiving special and careful attention on this score during pregnancy. Confinement was arranged for in the Maternity Hospital in these cases, and the infants

died in hospital. One patient required an induction at 34 weeks for progressive albuminuria, and another gave a bad obstetric history of three previous infant deaths due to maternal toxæmia.

There were also eight cases where premature birth was accounted for by ante-partum hæmorrhage. Of these, only one attended an ante-natal clinic. Four gave obstetric histories of previous hæmorrhages, premature births or still-births, while two were cases of placenta prævia.

Twenty-four cases of premature birth occurred where death was certified as being due to the fact of prematurity alone. It was discovered that in eight of these cases the health of the mothers had not been good. Conditions were found such as maternal heart disease, influenza and bronchitis, pleurisy, rheumatism and extreme anaemia and debility. It is interesting to note here that 18 of these mothers gave a history of one or more previous premature births or still-births, and in this connection, as in those cases of ante-partum hæmorrhage, the question of a positive Wassermann reaction arises. Four only had attended ante-natal clinics, where blood for the test is taken as a routine measure in every case, and in these four instances the results were negative.

There were 16 early cases of congenital deformity, including four spina bifida and two anencephaly. Pregnancy in all 16 cases was said to have been normal.

In dealing with the deaths of over one week of age, one finds the greater numbers due to such conditions as gastro-enteritis and convulsions, and, later still, the respiratory diseases—bronchitis and broncho-pneumonia.

Convulsions not associated with gastro-enteritis occurred in many cases. In two cases there was definite maternal toxæmia. In others the condition developed suddenly where the infants were breast-fed and were progressing satisfactorily.

Gastro-enteritis was responsible for 19 deaths, and in this connection it was noted that only two infants had been breast-fed throughout. In most cases two or three artificial foods appear to have been tried. Eight were attending child welfare centres. There was some question of maternal neglect and inefficiency in two cases, while another two were left in the care of relatives, the mothers being in hospital. In most cases the actual illness was of short duration and the infants were admitted to hospital on the advice of the medical practitioners called in. Continuous difficulty with feeding was experienced in only four cases.

In going through the eight cases where death was associated with meningitis, it was found that four were certified as tuberculous. In four of these the mothers themselves were suffering from active tuberculosis. One occurred in the Maternity Hospital, where a purulent meningitis was found post-mortem, and another was a case of infected hydrocephalus.

The remaining conditions, accounting for a large number of infant deaths, were the respiratory diseases—bronchitis and broncho-pneumonia. These affected the older infants and there were 39 during the year. Six developed after measles and five after whooping cough. It is felt that in these cases the all-important factor is the standard of care and attention that the mother herself is able to give the child in the early stages of the condition. Too often the child appears to have been seriously ill before any medical advice was sought. In many of the cases there was a history of a "chesty cough" for two or three days, the child then becoming definitely ill and the condition becoming fatal within a week. In a number of cases the fact was recorded that the mother herself appeared to be in a very poor state of health.

Seventy-four out of the 196, or 37·7 per cent., were found to have attended either the ante-natal clinics or child welfare centres, or both.

The notified cases of infectious disease are analysed according to age and sex in the following table :—

Disease	Under 1 year		1-2 years		2-3 years		3-4 years		4-5 years		5-10 years		10-15 years		15-20 years		20-35 years		35-45 years		45-65 years		65 yrs. & upwards		All Ages	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Scarlet Fever	—	1	5	11	13	8	20	19	21	15	73	86	32	32	6	15	2	17	—	1	1	—	—	—	173	205
Diphtheria	2	5	3	4	4	9	9	8	13	14	64	72	23	41	6	19	8	31	2	8	1	3	—	—	135	214
Enteric Fever	—	—	—	—	—	—	1	—	—	1	—	—	—	—	2	1	1	—	—	—	1	1	—	—	5	3
Pneumonia	4	5	9	3	6	1	3	1	—	3	7	5	2	3	3	3	12	6	13	2	17	8	5	8	81	48
Cerebro-Spinal Fever	—	2	—	—	—	—	—	—	—	—	1	1	—	2	—	—	1	—	—	—	—	—	—	—	2	5
Dysentery	—	—	—	—	1	—	—	—	—	—	1	1	1	1	—	1	1	—	1	—	3	1	4	—	12	4
Ophthalmia Neonatorum	20	29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	20	29
Erysipelas	—	—	—	—	1	—	—	—	—	—	—	2	—	1	—	1	4	11	7	7	14	11	2	7	28	40
Puerperal Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	—	49	—	7	—	—	—	—	—	61
Puerperal Pyrexia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	37	—	7	—	—	—	—	—	44
Malaria	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	1	—
Food Poisoning	—	—	—	1	1	—	—	—	—	—	2	—	1	2	—	—	7	5	4	1	—	3	2	—	17	12

Smallpox.—No cases of smallpox have been notified since 1932.

Vaccination.—There is now only one vaccination officer, a part-time officer having ceased duty as such on 30th June, 1935. The results of the work during the year in connection with the vaccination of 3,693 children are given in the following statement :—

	<i>Number.</i>	<i>Percentage.</i>
Successfully vaccinated	1,399	37·9
Insusceptible	4	0·1
Postponed	27	0·7
Certificates of exemption	1,856	50·3
Died unvaccinated	223	6·0
Unaccounted for (including cases removed to other districts)	184	5·0
Total	3,693	100·0

The proportions of children not returned as vaccinated and of certificates of exemption from vaccination are steadily increasing, as will be seen from the following table :—

<i>Year</i>	<i>Successfully Vaccinated</i>	<i>Certificates of Exemption</i>	<i>Percentage not returned as Vaccinated</i>	<i>Percentage of Certificates of Exemption</i>
1922	2,671	1,900	47·7	37·2
1923	4,223	1,538	35·5	23·5
1924	2,801	1,533	44·2	30·5
1925	2,541	1,533	48·1	31·3
1926	2,132	1,585	54·2	34·0
1927	2,027	1,255	52·2	29·5
1928	2,215	1,413	47·8	33·2
1929	1,797	1,520	56·7	36·6
1930	2,009	1,487	50·1	36·9
1931	1,905	1,507	52·5	37·6
1932	1,758	1,639	54·0	42·9
1933	1,501	1,791	59·6	48·1
1934	1,519	1,904	60·4	49·6
1935	1,399	1,856	62·1	50·3

Scarlet Fever.—It will be seen from the figures given below that there was a considerable decline in the number of cases of scarlet fever notified as compared with the figures for several previous years. The decline in the large number of cases that had been occurring for several years, which commenced in May, 1934, continued until the end of March, 1935, and from that time to the end of the year the number of cases that occurred each week was relatively few. The disease continued to be of a mild type and was the cause of only two deaths during the year.

<i>Year.</i>	<i>Cases.</i>	<i>Deaths.</i>
1926	261	—
1927	227	—
1928	263	2
1929	642	2
1930	537	—
1931	632	5
1932	726	3
1933	1,308	4
1934	905	5
1935	378	2

Diphtheria.—There was a decline in the number of cases of diphtheria, which coincided with that of scarlet fever. Although there was a reduction in the number of cases, there was not a corresponding reduction in the number of deaths, indicating that there is a tendency to an increase in the virulence of the disease. The numbers of cases and deaths and the case mortality during the past ten years have been as follows :—

<i>Year.</i>		<i>Cases.</i>		<i>Deaths.</i>		<i>Case Mortality per cent.</i>
1926	....	244	....	16	....	6·5
1927	....	344	....	15	....	4·4
1928	....	487	....	16	....	3·3
1929	....	735	....	30	....	4·1
1930	....	731	....	29	....	3·9
1931	....	589	....	24	....	4·1
1932	....	493	....	10	....	2·0
1933	....	476	....	19	....	4·0
1934	....	520	....	21	....	4·0
1935	....	349	....	19	....	5·4

Active Immunization against Diphtheria.—Since 1926 active immunization against diphtheria has been carried out, and during 1935 the attempt to build up an immune child population has been continued. Active immunization is of a purely voluntary character, no children being treated without a request in writing from their parents or guardians. It is therefore very gratifying to note that the public are showing an increasing interest in having their children protected against diphtheria in this way.

During the year, effort has been concentrated upon immunizing children of pre-school age and those in the infants' departments of the elementary schools. In this way it is hoped that eventually a significant proportion of children of the younger age groups will be rendered immune to the disease.

It is fully appreciated that in order to obtain the maximum benefit from prophylactic measures against diphtheria, children should receive treatment as soon as possible after they have attained the age of twelve months. With this object in view, a birthday letter is dispatched to the parents of each child so as to reach the home on the baby's first birthday. The letter explains briefly the advantage of securing protection against diphtheria, a post-card being enclosed with the letter which the parent may return should immunization be desired.

At each of the child welfare centres diphtheria immunization is performed. It is a part of the ordinary duties at the centres and does not in any way interfere with the other routine work. There is a definite advantage in maintaining such a system rather than setting up separate immunization sessions. The parents get to look upon the treatment as a normal procedure, while the medical officer who has advised them at the various stages of the child's development may actually carry out the operation. From conversation with other mothers attending the centres, it is soon realised that the baby will have no "after effects", while the example of other children gives assurance of the painlessness of the procedure.

When the entrants' group are medically inspected at routine medical inspections at schools the medical officer has a personal word with the parent on the subject of immunization. Arrangements are also made from time to time by which the whole of the infants' department in a school are offered immunization. In these instances the injections are given in the school.

Health visitors, school nurses and sanitary inspectors give information regarding diphtheria prophylaxis when visiting homes in connection with infectious disease or other public health matters. For cases which cannot be conveniently treated at a child welfare centre, or at school, a special immunization clinic is held once weekly,

to which children of any age may be referred. This clinic has proved very useful, the number attending, of course, varying to a great degree with the prevalence of infectious disease.

Concerning the actual treatment, toxoid antitoxin floccules (T.A.F.) has continued to give good results, three doses of 1 c.c. being administered at weekly intervals. Small groups of children have been immunized with alum preparations by the "one-shot method" but, both as regards the percentages of negative posterior Schick tests and freedom from reaction, these preparations have been found to compare unfavourably with floccules. This being the experience, no change has been made in the immunizing agent for general use, but it is anticipated that great advantage will be derived when it is possible to complete the actual immunization by one injection.

Anterior Schick testing is carried out when groups of children are to be inoculated at schools, but this is dispensed with in the case of children inoculated at the child welfare centres. Posterior Schick testing has now become a routine procedure after a course of prophylactic treatment, and without this safeguard it is felt that the process has been incomplete. The number of parents who submit their children for this test has fully justified the effort which has been made to secure its general acceptance.

It is shown in the following table that of 3,037 children and adults who were subjected to the anterior Schick test, 1,507, or approximately 50 per cent., were found to be susceptible to diphtheria. In addition, 1,721 children were inoculated without being subjected to the anterior Schick test, the total number inoculated being 3,116, while a total of 4,646 were either inoculated or found by anterior Schick test to be immune.

Persons	Subjected to Anterior Schick Test			Inoculated* but not subjected to Anterior Schick Test	Total Number Inoculated*	Failed to attend for Completion of Inoculation
	Number	Positive	Inoculated*			
Under 5 years	275	186	154	775	929	75
5 years and upwards	2,762	1,321	1,241	946	2,187	159
Totals	3,037	1,507	1,395	1,721	3,116	234

*Complete course of injections.

The posterior Schick test has usually been performed after a period of between six to eight weeks has elapsed following the last immunizing injection. Particulars of the work carried out during 1935 in connection with posterior Schick testing are given in the following table. It is found that 6.5 per cent. remain susceptible as judged by this test; in such cases one additional injection is given. In almost every instance it has been found that the posterior Schick reaction is of a very mild character and differs markedly from the reaction shown by the anterior Schick test.

Persons	Subjected to Posterior Schick Test			
	Negative	Positive and again Inoculated (one injection)	Totals	Percentage positive
Under 5 years	630	42	672	6.2
5 years and upwards	2,004	142	2,146	6.6
Totals	2,634	184	2,818	6.5

Enteric Fever.—Eight cases of enteric fever were notified, and one death was registered as being due to the disease. The numbers of cases and deaths during the years 1926-1935 have been as follows :—

<i>Year.</i>	<i>Cases.</i>	<i>Deaths.</i>
1926	9	2
1927	6	4
1928	2	2
1929	18	4
1930	11	—
1931	8	1
1932	8	2
1933	4	1
1934	3	1
1935	8	1

Ophthalmia Neonatorum.—Forty-nine cases of ophthalmia neonatorum were notified, 25 of which were notified from institutions. Of the remaining 24 cases, six were treated by private medical practitioners, 14 were treated by nurses of the Queen's Institute of District Nursing and four were admitted to the City Lodge Hospital. In one case the vision was slightly impaired. Two cases removed from Cardiff before the result of treatment was ascertained, and in the remaining cases the vision of the infants was unimpaired.

Food Poisoning.—During the year, 29 cases of food poisoning were notified under a local Act. Investigations were made as the result of these notifications and frequently additional cases were discovered, the total number ascertained being 64. The infecting organism was isolated from the patients and in each instance it was found to be *Bacillus Aertrycke*. In two cases the infection was fatal.

Out of the total of 64 cases it was possible definitely to trace the article of food responsible for the symptoms in 41 cases, which occurred in four groups, the accepted standard of proof being that the organism was recovered both from the patient and from food which the patient had consumed. The number of persons infected by a particular food and the type of food incriminated are set out below :—

<i>Number of Persons Infected.</i>	<i>Infected Food.</i>
19	Roast pork.
7	Jellied veal.
4	Pressed beef.
11	Jellied veal.

In the remaining 23 patients it was impossible to trace the food responsible for the infection. Many articles were under suspicion, but usually on account of the fact that no sample of the suspected food was available for examination, bacteriological confirmation could not be obtained.

VI.—NON-NOTIFIABLE DISEASES.

Measles.—An epidemic of measles, which commenced in December, 1934, continued during the first half of 1935. The number of deaths due to the disease was 28, corresponding to a death-rate of 0·12 per 1,000 of the population, compared with 8 deaths and a death-rate of 0·03 in 1934. The number of deaths and the death-rate from measles during the ten years 1926-1935 were as follows :—

<i>Year.</i>		<i>Deaths.</i>		<i>Death-rate per 1,000.</i>
1926	....	10	....	0·04
1927	....	31	....	0·14
1928	....	21	....	0·09
1929	....	113	....	0·50
1930	....	8	....	0·03
1931	....	50	....	0·22
1932	....	10	....	0·04
1933	....	32	....	0·14
1934	....	8	....	0·03
1935	....	28	....	0·12

Whooping Cough.—Eleven deaths were registered during 1935 as being due to whooping cough, corresponding to a death-rate of 0·05 per 1,000. The following is a comparison of the number of deaths and the death-rate from this disease during the ten years 1926-1935 :—

<i>Year.</i>		<i>Deaths.</i>		<i>Death-rate per 1,000.</i>
1926	....	19	....	0·08
1927	....	7	....	0·03
1928	....	28	....	0·12
1929	....	24	....	0·11
1930	....	22	....	0·10
1931	....	6	....	0·03
1932	....	24	....	0·11
1933	....	14	....	0·06
1934	....	14	....	0·06
1935	....	11	....	0·05

Diarrhoea.—The number of deaths at all ages from diarrhoea, etc., during the year was 34, being equivalent to a death-rate of 0·15 per 1,000 of the population. Of these 34 deaths, 22 occurred amongst children under 2 years of age, corresponding to a death-rate of 6·5 per 1,000 births. During the ten years 1926-1935 the number of deaths from diarrhoea, etc., under 2 years and the death-rate per 1,000 births were as follows :—

<i>Year.</i>		<i>Deaths under 2 years.</i>		<i>Death-rate per 1,000 births.</i>
1926	....	40	....	8·8
1927	....	34	....	8·3
1928	....	46	....	11·2
1929	....	44	....	11·2
1930	....	30	....	7·9
1931	....	29	....	7·7
1932	....	30	....	8·6
1933	....	30	....	8·7
1934	....	34	....	9·7
1935	....	22	....	6·5

Influenza.—There were 32 deaths due to influenza during the year, being equivalent to a death-rate of 0·14 per 1,000 of the population, as compared with 16 deaths and a death-rate of 0·07 per 1,000 in 1934. There was no serious epidemic of the disease during the year, but over two-thirds of the deaths occurred during the first quarter. The following table shows the numbers of deaths registered as being caused by influenza and respiratory diseases and the proportion of such deaths to the total number of deaths from all causes during the ten years 1926-1935 :—

Year	Number of Deaths from			Proportion per cent. of Deaths from All Causes
	Influenza	Respiratory Diseases	Influenza and Respiratory Diseases	
1926	33	324	357	14·6
1927	107	532	639	22·4
1928	42	389	431	16·2
1929	89	425	514	17·6
1930	23	292	315	12·4
1931	60	379	439	15·3
1932	57	287	344	12·3
1933	141	354	495	16·4
1934	16	245	261	9·6
1935	32	222	254	9·3

Home Nursing of Pneumonia.—The following is a summary of the work done during 1935 by nurses of the Queen's Institute of District Nursing in connection with the arrangement whereby the Institute undertakes the home nursing of cases of pneumonia :—

Cases in hand at beginning of year	3
Cases referred for nursing during the year	75
Visits made during the year	1,063
Cases in hand at end of year	—

VII.—CARDIFF ISOLATION HOSPITAL.

Cases of the following diseases are admitted to the hospital :—Enteric fever, scarlet fever, diphtheria, cerebro-spinal fever, epidemic encephalitis, acute poliomyelitis, puerperal fever and puerperal pyrexia. Cases of measles, whooping cough and chicken-pox are also admitted on a selective basis, and cases of these diseases and other minor infectious diseases are admitted from public institutions.

The number of patients admitted to hospital, the average daily number of patients under treatment, the number of patient-days and the average duration of residence of the patients admitted are shown in the following table :—

Disease according to Diagnosis after Admission	Patients Admitted	Average Daily Number of Patients	Patient-days	Average Duration of Residence in days
Scarlet Fever	238	37	10,434	44
Diphtheria	312	40	16,577	53
Other Diseases	407	30	12,121	30
All Diseases	957	107	39,132	41

Report for 1935 of G. Emrys Harries, M.B., B.S. (Lond.), D.P.H., Resident Medical Superintendent of the City Isolation Hospital.

During the year all the permanent buildings of the Isolation Hospital were in full use, with the exceptions of Pavilion 7, which was temporarily closed for four months in the summer for painting purposes and minor renovations, and Pavilion 1, which was closed for alterations in the heating system and was not reopened. Caerau Hospital, which in recent years had been used for scarlet fever cases and diphtheria carriers, remained closed for the whole of the year.

The health of the nursing and domestic staff was generally satisfactory. Two nurses contracted diphtheria and three scarlet fever, whilst one developed typhoid fever. Twenty nurses developed other conditions—mainly mild attacks of tonsillitis. Two maids developed diphtheria and nine others suffered from various mild illnesses.

Seventy-three members of the staff were Schick tested, and 19 who were ascertained to be susceptible were inoculated against diphtheria, while 17 were Dick tested and found to be negative. Twenty-four nurses who were in contact with cases of enteric infection received prophylactic courses of T.A.B. vaccine.

The usual lectures and tutorials were given during the year. Eight nurses sat the Preliminary State Examination, and all were successful, while 13 passed the Final Examination and only one failed.

In the course of the year, 957 patients were admitted to the wards.

Scarlet Fever—Two hundred and fifty-four cases were admitted to the wards, of whom 238 were true cases of scarlet fever. Fifteen of the others suffered from a variety of adventitious rashes, but one other proved to be a case of tuberculous meningitis, from which disease the patient succumbed.

Thirteen of the true cases of scarlet fever suffered concurrently from other diseases, mainly measles, chickenpox and diphtheria.

The type of scarlet fever prevailing was again of mild character. Of the 238 cases, 229 were finally classified as simple, eight as septic or sub-septic (three being surgical scarlet fever) and one as toxic or sub-toxic. One hundred and four cases received doses (10 c.c. or more) of scarlatinal anti-toxin. Twenty cases also received prophylactic doses of measles serum owing to the fact that they were measles contacts. On admission, nasal swabs of all cases of scarlet fever were taken, and as a result of this routine investigation three diphtheria carriers were discovered, being subsequently isolated and treated accordingly.

The principal complications met with were as follows:—

<i>Complication.</i>	<i>Cases.</i>	<i>Percentage.</i>
Arthritis	5	2.10
Adenitis	45	18.91
Otorrhoea	32	13.45
Rhinitis	22	9.24
Nephritis	5	2.10
Tonsillitis	1	0.42
Albuminuria	9	3.78
Epistaxis	1	0.42
Diphtheria	4	1.68
Otalgia	2	0.84
Herpes	3	1.26
Mastoiditis	6*	2.52
Vaginitis (diphtheritic)	1	0.42
Carditis	1	0.42
Tachycardia	1	0.42
Irregular pulse	2	0.84
Diphtheria carriers	3	1.26

*Schwartz's operation performed on five cases of mastoiditis—two prior to admission.

A child of 3½ years, who was admitted with surgical scarlet fever and pyaemia following a recent appendicectomy, died. Classifying this one death to scarlet fever, the hospital mortality was 0·42 per cent.

Diphtheria.—Three hundred and ninety-five cases were admitted to the wards, of whom 269 were true cases of diphtheria, 43 were carriers (of whom one, a child of seven months, died from gastro-enteritis), while the remaining 83 suffered from various non-diphtheritic conditions. Of the latter group, the majority suffered merely from a variety of throat conditions, 67 of these being either tonsillitis or quinsy. The remaining cases were finally diagnosed as follows:—Three septic throat, three laryngitis, two croup, one tuberculous meningitis, one Vincent's angina, one otorrhoea, one sub-mental abscess, and the four remaining cases, notified as diphtheria, were in reality suffering from scarlet fever. One death occurred in this group of 83 cases, a patient of nine months, suffering with tuberculous meningitis.

There were 18 deaths amongst the 269 true cases of diphtheria, giving a case mortality of 6·69 per cent. Death in these 18 cases was attributable to early heart failure due to toxæmia, and it is noteworthy that eight cases died within twelve hours of admission, and only two lasted as long as the seventh day after admission. If the eight cases that died within twelve hours of admission are excluded, the case mortality would be 3·83 per cent.

Table showing Type of Diphtheria and Mortality :—

Type	Number	Died	Mortality per cent.
Faucial	195	6	3·77
Faucial and nasal	43	9	20·93
Faucial and laryngeal	2	—	—
Laryngeal only	5	1	20·00
Nasal only	19	—	—
Aural only	1	—	—
Laryngeal, faucial and nasal	2	1	50·00
Faucial and vaginal	1	—	—
Empyema wound	1	1	100·00
Totals	269	18	6·69

It will be seen from the above table that the diphtheria mortality rate for the year was 6·69 per cent., as compared with 4·47 per cent. in 1934 and 3·44 per cent. in 1933.

The increase in the diphtheria mortality rate is due to the prevalence of the severe type of diphtheria, at the onset simulating a bilateral quinsy with the formation of a snail-track membrane, which visited Cardiff towards the end of 1934. All these cases were treated with massive intravenous therapy, preceded at a four-hourly interval with a large dose of serum intra-muscularly. This oedematous type of diphtheria also received 10 to 20 c.c. of scarlatinal antitoxin. Our comparatively low mortality rate is ascribed to these measures and to early notification of diphtheria, as a result of energetic propaganda by the Medical Officer of Health.

Incidentally, it may be mentioned that only 269 true cases of diphtheria were admitted in 1935, as compared with 470 in 1934 and 377 in 1933. It should be noted that this fall in the incidence of diphtheria coincides with an increasing response by the public to the diphtheria immunization campaign undertaken by the Public Health Department.

Of the nine cases suffering from membranous croup, five were cases of pure laryngeal diphtheria, two had combined faucial and laryngeal lesions, and two laryngeal, faucial and nasal. One of the pure cases of laryngeal diphtheria died, as also one of laryngeal,

aucial and nasal. The hospital mortality among the laryngeal diphtheria cases was therefore 22·22 per cent.

Types of Post-diphtheritic Paralysis :—

Type.	Number.
Palatal paresis	8
Pharyngeal paralysis	5
Paralysis of neck muscles	6
Facial paralysis	1
Posterior cervical paralysis	2
Ciliary paresis	1
Total	23

Thirteen patients in all suffered from paralysis. The paralysis rate was therefore 4·8 per cent., as compared with 8·9 per cent. in 1934 and 6·1 per cent. in 1933. The low incidence of paralysis is believed to be attributable to more massive intravenous therapy.

Table showing Diphtheria Death-rate according to the Day of Disease on which Serum was given :—

Day of Disease on which Serum given	Number of Patients	Number of Deaths	Number of Deaths per cent.
1st	11	—	—
2nd	72	4	5·55
3rd	75	2	2·67
4th	37	6	16·22
5th	27	4	14·81
Later than 5th	44	2	4·55
No Serum given	3	—	—
Totals	269	18	6·69

Of the patients who died, eight were under 5 years, nine were in the 5-10 years group, and the other death occurred in a patient of 12 years.

Measles—One hundred and twenty-seven patients were admitted to hospital as cases of measles, all proving to be true cases of the disease, except in four instances, where the final diagnoses were as follows :—Two erythema, and one erythroedema, which recovered, also one fatal case of lobar pneumonia and acute nephritis in a child of 5 years. In addition, two cases intimated as scarlet fever also proved to be cases of measles, and are included in this section of this report. Of the 125 true cases of measles, 11 died—nine from broncho-pneumonia, one from broncho-pneumonia and achondroplasia, and the remaining one from pulmonary tuberculosis. The hospital mortality was therefore 8·88 per cent.

The principal complications met with were :—

Broncho-pneumonia (present on admission)	39
Otorrhoea	14
Adenitis	4
Rhinitis	11
Albuminuria	7
Diphtheria	4

Scarlet fever	....	....	....	....	1
Conjunctivitis	....	....	....	....	6
Ptosis	....	....	....	....	1
Whooping cough	....	....	....	....	5
Lobar pneumonia	....	....	....	....	2
Bronchitis	....	....	....	....	2
Croup	....	....	....	....	1
Otitis media	....	....	....	....	2
Pulmonary tuberculosis	....	....	....	....	1

Of the four cases of measles also suffering with diphtheria, referred to above, one was a case of faucial, nasal and laryngeal diphtheria, which necessitated tracheotomy within four hours of admission, two were cases of nasal diphtheria, and the remaining one was a case of nasal and laryngeal diphtheria. All these cases made complete recoveries.

It is worthy of note that the new Observation Block, with facilities for open-air treatment, was found to be of special advantage in the treatment of cases of broncho-pneumonia.

Apart from patients admitted with measles from other institutions, the cases of measles were chosen for admission on a selective basis of overcrowding and poverty and the presence of complications, particularly broncho-pneumonia.

Enteric Fever.—Twelve cases were admitted as likely to be suffering from enteric infection. Ten of these proved to be true cases of typhoid fever and one of paratyphoid B, all of whom recovered, but the remaining case was found to be tuberculous meningitis, from which disease the patient died.

Three of the typhoid patients received the new Felix anti-typhoid serum, but one was not satisfied that any definite improvement resulted from this serum therapy.

Bacillary Dysentery.—Twenty-four patients were admitted as likely to be suffering from this disease, of whom 19 were of the Sonne type, one Flexner V, one Flexner W, and one Flexner W and Y. The remaining two patients were found to be suffering with non-specific enteritis and food poisoning (*Bacillus Aertrycke*) respectively. All these patients made a satisfactory recovery.

Erysipelas.—Twenty-five patients were admitted as suffering from this disease, all except two proving to be true cases. The two exceptions were finally diagnosed as suffering from influenza (recovered) and orbital cellulitis respectively, the latter being a patient aged 66 years with severe diabetes, who died the day following admission to hospital. Three deaths occurred amongst the true cases of erysipelas. The death-rate was therefore 13·04 per cent.

Cerebro-Spinal Meningitis.—Thirteen patients were admitted as possible cases of this disease, and were finally classified as follows:—

			Number.		Deaths.
Cerebro-spinal fever	....	....	5	....	3
Tuberculous meningitis	....	....	1	....	1
Broncho-pneumonia	....	....	1	....	1
Lobar pneumonia	....	....	1	....	—
Dyschezia	....	....	1	....	—
Influenza	....	....	2	....	—
Tonsillitis	....	....	1	....	—
Scabies	....	....	1	....	—
			—		—
Totals	....		13	....	5
			—		—

From the above table it will be observed that five cases of cerebro-spinal fever were admitted, two of whom responded to serum therapy, but three of the patients died, giving a death-rate of 60 per cent. It is of interest to observe that the organism isolated from one of the fatal cases of cerebro-spinal fever was atypical, as it possessed many of the features that are usually associated with *Neisseria flavus*, Type II.

Mumps.—No cases were admitted to hospital during the year.

Whooping Cough.—Thirty patients were admitted as cases of whooping cough, all of whom, except two cases of broncho-pneumonia, proved to be suffering from the disease. Thirteen true cases were complicated by broncho-pneumonia (in 12 instances being present on admission). Four of the whooping cough patients died, two aged seven months and eleven months respectively with broncho-pneumonia, one aged 3 years with convulsions, and the remaining patient, aged 15 months, with tuberculous meningitis. The death-rate amongst the whooping cough patients was 14·29 per cent. As in cases of measles, patients suffering with whooping cough were admitted on a selective basis.

Chickenpox.—Five cases were admitted from other institutions, all of whom recovered, including a rare case of varicella gangrenosa in a debilitated child of two years.

Rubella.—The only case admitted during the year made an uneventful recovery.

Puerperal Fever and Pyrexia.—Thirty-five cases were admitted and were finally classified as follows :—

Pyæmia	....	....	....	....	....	2
Septicæmia	....	....	....	....	....	10
Sapraemia	....	....	....	....	....	15
Sapraemia and cellulitis of buttocks	....	....	....	....	....	1
Sapraemia and insanity	....	....	....	....	....	1
Sapraemia and mastitis	....	....	....	....	....	1
Sapraemia and breast abscess	....	....	....	....	....	1
Phlegmasia alba dolens	....	....	....	....	....	1
Pyelitis	....	....	....	....	....	1
Pyrexia due to bronchitis	....	....	....	....	....	1
Pyrexia due to erysipelas following breast abscess operation	....	....	....	....	....	1
Total					....	35

Of the above-mentioned 35 cases, six died—two puerperal pyæmia, two puerperal septicæmia, one puerperal sapraemia, and one puerperal sapraemia with insanity—giving a death-rate due to puerperal fever and pyrexia of 17·14 per cent.

Food Poisoning.—Nine cases were admitted during the year. With the exception of one case of whooping cough and a patient who proved to be a food poisoning carrier, the remaining patients all proved to be true cases and made satisfactory recoveries.

In four cases of food poisoning and the one carrier, the *Bacillus Aertrycke* was isolated from the intestinal tract, whereas in three cases (who came from the same household) the blood showed a positive agglutination to *Bacillus Gaertner* in two instances. In addition to the foregoing seven cases of food poisoning, there was also admitted to

the wards a case of bacillary dysentery which was found to be a case of food poisoning (*Bacillus Aertrycke*). This latter case is therefore referred to in the section of this report dealing with bacillary dysentery.

Other Diseases.—In addition to the afore-mentioned diseases, there were admitted to the wards 25 patients, all of whom made a satisfactory recovery, and who were finally classified as follows :—

Tonsillitis	....	....	....	....	8
Tonsillitis and quinsy	....	....	....	....	1
Influenza	....	....	....	....	2
Influenza and otorrhoea	....	....	....	....	1
Sprained ankle	....	....	....	....	1
Broncho-pneumonia	....	....	....	....	2
Bronchitis	....	....	....	....	1
Jaundice	....	....	....	....	2
Slight bruising	....	....	....	....	1
Debility	....	....	....	....	1
Spina bifida occulta	....	....	....	....	1
Persistent albuminuria	....	....	....	....	1
Scabies	....	....	....	....	1
Rheumatism	....	....	....	....	1
Septic finger	....	....	....	....	1
Total					25

With the exception of the two cases of broncho-pneumonia, aged nine months and 18 months respectively, with poor home conditions, the remaining cases were members of the nursing or domestic staff of this hospital.

Schick and Dick Tests.—The following table shows the number of scarlet fever patients who were Schick tested and the number of diphtheria patients who were Dick tested during the year :—

	Number Positive	Number Negative	Totals	Percentage Positive
Schick Test	84	115	199	42·21
Dick Test	60	131	191	31·41

Active Immunization.—As in previous years, active immunization against diphtheria in all cases admitted to the hospital for conditions other than diphtheria was again carried out when the signed consent of a parent could be obtained. For this purpose, 199 true cases of scarlet fever were Schick tested, and of these, 84 were found to be positive. Of these, 64 were completely immunized* while in hospital, and eight were partially immunized, arrangements being made for the completion of the course, including subsequent Schick testing, at the public health clinics after discharge of the patients from hospital. In addition, 161 patients suffering from other conditions were Schick tested, of whom 100 were found to be positive; 42 of these were completely

*Completed full course of prophylactic injections and subsequently reacted negatively to the Schick skin test for susceptibility to diphtheria.

immunized*, and 19 were partially immunized while in hospital, the same arrangements also being made for the completion of the course of inoculations in these cases.

Laboratory Work.—During the year over 3,000 bacteriological examinations of various kinds were conducted in the hospital laboratory, as compared with 2,754 and 1,492 in 1934 and 1933 respectively. The specimens examined were mainly diphtheria swabs, but included also cerebro-spinal fluids, urines, blood and faecal cultures, pus, sputum, etc.

Apart from the foregoing, special examinations, such as virulence tests, were again kindly carried out by Dr. W. Parry Morgan at the Cardiff and County Public Health Laboratory.

I would like to express my appreciation to the hospital staff for their loyalty and devotion to duty and to the Medical Officer of Health and the staff of the Public Health Department for their kind assistance at all times.

*Completed full course of prophylactic injections and subsequently reacted negatively to the Schick skin test for susceptibility to diphtheria.

VIII.—LORD PONTYPRIDD HOSPITAL (DULWICH HOUSE) AND THE RHEUMATISM SUPERVISORY SCHEME.

Report for 1935 of Cecil W. Anderson, M.B., Ch.B., D.P.H., Medical Superintendent of Lord Pontypridd Hospital.

Twenty-five patients were in hospital on 31st December, 1934, and 123 were admitted during 1935. The number of patients discharged was 127, leaving 21 in hospital on 31st December, 1935. No deaths occurred at the hospital during the year. Four cases were not treated to a conclusion for the following reasons:—

Removed by parents against medical advice	....	3	
Removed to Isolation Hospital—			
Diphtheria carrier	....	1	
Total	....	4	

Two patients were treated to a conclusion as far as rheumatic infection was concerned, but they were transferred, with permission of their parents, to other Corporation hospitals for further investigation of abnormal respiratory conditions discovered while in Lord Pontypridd Hospital.

Of the 123 patients admitted, 45 were boys and 78 were girls, their ages varying from 2½ years to 13 years.

The number of cases admitted each year since 1929, according to sex, is shown in the following table:—

Year	Boys	Girls	Totals
1929....	35	37	72
1930....	57	58	115
1931....	51	103	154
1932....	40	103	143
1933....	42	66	108
1934....	52	76	128
1935....	45	78	123
Totals	322	521	843

The reasons for the admission of the 123 cases during 1935 were as follows :—

Chorea alone	6
Chorea and early carditis	32
Rheumatic pains alone	6
Rheumatic pains and early carditis	48
Early carditis alone	3
Chorea and valvular disease of heart	4
Rheumatic pains and valvular disease of heart...	7
Valvular disease of heart alone	1
Chorea and rheumatic pains	1
Chorea, rheumatic pains and early carditis	9
Chorea, rheumatic pains and valvular disease of heart	1
Arthritis alone	1
Arthritis and early carditis	1
Arthritis and valvular disease of heart	1
Tachycardia alone	1
Erythema nodosum and early carditis	1
Total	123

During 1935 a new system of indicating the clinical condition of the heart was commenced. In previous years the letter "h" was used for minor cardiac manifestations of rheumatic infection. In coming to a decision as to the condition of such hearts at the time of discharge (i.e., after treatment), some difficulty frequently arose as to whether one could justifiably classify them as normal (N) although they frequently showed definite improvement as compared with the condition on admission. The following classification has therefore been adopted :—

N	Normal heart.	} Formerly classified as "h"
Ia	Slight lengthening or softening of first mitral or pulmonic sounds.	
Ib	Lengthening and softening of first mitral sound with slight <i>local</i> apical bruit.	
Ic	Definite systolic apical bruit but not conducted.	
II.	Definite blowing systolic apical bruit conducted to axilla and back.	} Formerly classified as "H"
IIIa, b or c.	Definite blowing systolic apical bruit conducted to axilla and back and accompanied by an apical distolic bruit in (a) early, (b) mid- or (c) late distolic or presystolic period.	

The condition of the heart on admission and discharge of the cases admitted and treated to a conclusion during 1935 is set out in the following table :—

Condition of Heart	On Admission	On Discharge
Normal	14	71
Minor cardiac manifestations	92	44
Major cardiac manifestations	13	4
Totals	119	119

The average period spent in hospital by the 119 cases who were treated to a conclusion was 67·7 days.

The following table gives the condition of the heart on admission and discharge of all cases treated to a conclusion since the opening of the hospital in April, 1929 :—

Years	Condition of Heart			Total
	Normal	Minor Cardiac Manifestations	Major Cardiac Manifestations	
1929-35				
On admission	67	626	106	799
On discharge	496	218	85	

The sedimentation tests carried out in the hospital during 1935 numbered 209.

Fifty-three children were Schick tested and 34 positive reactors were inoculated with diphtheria prophylactic. Seven were posterior Schick tested, with negative results. As before, the children who did not receive the posterior Schick test in hospital were referred to the special immunization clinic on discharge.

The following is a record of the supervisory work carried out during the year :—

Cases remaining under supervision at beginning of year	1,687
New cases attending	487
Cases discharged from supervision on attaining 14 years of age	229
Other cases who ceased to be supervised :—	
Left Cardiff	13
Died	2
Discharged (not suffering from rheumatism)	153
Ceased to attend	104
	501
Cases remaining under supervision at end of year	1,673
Total attendances :—	
At routine Rheumatism Clinics	3,725
At Out-patient Department of Lord Pontypridd Hospital	164
Routine clinic sessions held	198
Out-patient clinic sessions held	45
Average attendance at routine clinic sessions	19·0
Average number of new cases at routine clinic sessions	2·5
Average attendance at Out-patient Department	3·6

The following table shows the condition of the heart in the 229 cases that ceased to remain under supervision because of attaining the age of 14 years :—

	On Ascertainment	On Discharge
Normal	88	142
Minor heart manifestations	121	66
Major heart manifestations	20	21
Totals	229	229

The types of heart disease present in the 21 cases having major heart manifestations were as follows :—

Mitral regurgitation	....	....	....	16
Mitral stenosis	....	....	....	4
Aortic regurgitation	....	....	....	1
Total	....	....	....	21

A juvenile rheumatism supervisory scheme has now been in operation in Cardiff for almost ten years. Prior to its inauguration the presence of heart abnormalities in school children had been noted for many years. Beyond the classification of such cases into the two recognised groups, namely, organic and functional, very little provision had been made for their observation or treatment. With the increased knowledge of the symptoms and signs of early rheumatism in childhood and the alarming frequency with which the more serious sequelae were met with, it became evident that some form of supervision required to be provided for such cases. In the early days the number of cases so supervised at the rheumatism clinics was small, but the stage has now been reached when a considerable portion of the time of staff medical officers, nurses and clerks is devoted to this work. That the work is very essential and profitable cannot be denied. At the same time our zeal and enthusiasm to make the scheme as comprehensive as possible must not tempt us to include within its scope cases which cannot justifiably be considered as true rheumatics. The inclusion of such cases must inevitably lead to faulty statistics and may give rise to a very false impression of the actual value of the scheme.

After careful consideration of the records of our so-called rheumatic children, one is driven to the conclusion that in many cases there is no justification for branding them as such. In the light of our present knowledge of the disease and the close observation of such cases over a number of years, it is probable that many of them would not now be classified as having suffered from juvenile rheumatism. The observation of such cases has, however, proved of value, in that the true significance of the abnormalities presented can be gauged and a more accurate picture of the definite rheumatic child can be obtained. It is perhaps advisable, therefore, that we should consider shortly some of the facts which seem to be evolving out of the mass of clinical material which has accumulated in recent years and which continues to pass through our hands. By so doing we may be able to come to a decision as to what type of case must be carefully supervised and what type may be eliminated from the scheme without detriment to the subsequent health of the child. Let us consider, therefore, the conditions which are looked upon as being characteristic of the rheumatic child.

Pain.—The child with acute and subacute rheumatism, or with definite chorea, should present little difficulty in diagnosis, but there is still left a much larger group of cases in which the clinical symptoms are more insidious in onset, less severe in character and more indefinite in their manifestations. It is here that care must be taken. Failure to recognise the significance of such symptoms must inevitably result in an increase in the incidence of the serious sequelae of the disease, namely, myocarditis and endocarditis. On the other hand, it is probable that the indiscriminate application of the term "rheumatism" to a wide variety of obscure conditions in which pain in the muscles or joints is a common factor, has resulted in the inclusion in our schemes of a number of children who are not in fact true rheumatics. There can be no doubt that too much importance has been attached to "pain" as a symptom of rheumatism. Few children do not at some period of another suffer from joint or limb pains. To brand all such children as rheumatic is not justifiable and may be alarming to both parent and patient. It is doubtful whether pain in itself is of special importance in the diagnosis of rheumatism in childhood. The wiry, over-active child, who is "on the go" from morning till night, frequently complains of pains in the limbs at the end of the day or of stiffness

on rising in the morning. The secondary school child undergoing relatively strenuous gymnastic and drill courses has his or her periods of muscular strain, with subsequent pain in the affected muscles. The various seasonal games, namely, "skipping ropes," "hoops," "hop scotch," "whipping tops," etc., may all bring in their train a crop of muscular pains. The child who does not like school, frequently as the result of some anxiety state, may complain of pains of varying types in an effort to avoid school attendance. Praecordial pain, when authentic, is of definite importance and should be an indication for very careful consideration. On close analysis of such cases, however, the symptom is most commonly found in introspective children to whom suggestive remarks of possible "heart attacks or disease" have been made by nervous parents on the slightest complaint of chest pain. Close examination of the heart usually fails to reveal any abnormality in such cases. The elimination of all these factors in the production of childish aches should therefore be remembered before a diagnosis of rheumatism is contemplated.

Languor.—This symptom would appear to be of much more significance than pain. It is obviously a further departure from the "normal" than the occasional pains of an active child. In younger children, when associated with various degrees of anaemia, it is probably one of the most important details in the picture of the rheumatic child. The child who becomes "dead beat" after play, or is easily tired on exertion or is irritable and not keen on "going out", should be looked upon with suspicion. Here again, of course, it is necessary to eliminate certain recognised causes of languor other than rheumatism. The differential diagnosis between the early rheumatic and the early tuberculous child affords opportunity for much valuable research work, as the symptoms and signs of these diseases frequently approximate very closely.

Pulse Rate.—The true rheumatic child suffering from active rheumatism and early carditis usually shows an increase in the pulse rate. In children, however, the pulse rate may vary greatly without indicating abnormality of function, and too much reliance cannot be placed upon it as a single sign of rheumatic infection. The nervous strain of a medical examination is frequently sufficient in itself to lead to an alarming increase in the rate. Simple exercise tolerance tests with the pulse rate as a guide are often of little value for this reason. Irregularities in the rhythm of the heart are occasionally met with. They are often apparently not related to any rheumatic infection and appear to clear up without any involvement of the heart substance. The most reliable observation which can be made is undoubtedly the "sleeping pulse" rate, for here external factors influencing the rate are reduced to a minimum. Its limitations are, however, obvious, as it is only in an institution, or with the co-operation of intelligent parents, that it can be ascertained and used for diagnostic purposes.

Heart.—It is now generally recognised that the death-rate from heart disease in adult life is intimately associated with the incidence of rheumatism in childhood. Recognition of the rheumatic child and careful examination of evidence of heart abnormality is the obvious line of prophylaxis. Any rheumatism scheme should therefore provide for the following :—

- (a) The treatment of the true rheumatic child.
- (b) The elimination of the non-rheumatic child.
- (c) The supervision of doubtful cases of rheumatism and their ultimate inclusion in one or other of the previous two groups.

From the research worker's point of view the elimination of the non-rheumatic and the supervision of doubtful cases are equally as important as the treatment of true rheumatic cases. The days are over when the recognition of heart abnormalities in school children was merely a detail to be recorded on the routine medical inspection cards. The value of all our present supervisory work will be judged in the future not

by the number of such abnormal cases which we can discover from year to year, but by the extent to which, as a result of our researches and increasing knowledge, we can recognise and treat the potentially serious abnormalities and can eliminate the harmless. This fact should be constantly in our minds.

An apex beat at or within the nipple line, associated with strong clear-cut sounds in all cardiac areas, is usually taken as indicative of a healthy heart. Enumerable departures from this standard with apparent complete physiological fitness are, however, frequently met with. To classify all such hearts as unhealthy is not justifiable, even though they may depart quite widely from our recognised standard. To brand them as rheumatic without strong supporting evidence is equally unjustifiable.

The age, sex, temperature, posture and past history of the child with regard to infectious and other diseases must be considered in relation to the clinical findings.

The symptoms and signs of puberty often closely resemble those of the rheumatic child, and nervous girls of eleven years and upwards frequently show wide variations in their muscular and valvular cardiac sounds. A heart considered as being normal in the erect posture may often show considerable lengthening and softening of the first mitral sound in the recumbent posture. It is probable that many children have been confined to bed unnecessarily for long periods owing to failure to recognise this purely postural alteration in the heart sounds.

It is well known that diphtheria, pertussis, pneumonia and other diseases common in childhood may all cause variations in the heart sounds during their acute phases. That they may leave abnormalities persisting for a considerable time must also be borne in mind or a mistaken diagnosis of rheumatism may be made.

The relationship between scarlet fever or tonsillitis and rheumatism is a different matter, and the frequency with which severe cardiac lesions appear within a short period after an attack of these diseases emphasises the need for very close observation of the heart during the acute phases and careful supervision during the convalescent and subsequent stages.

Special mention must be made of a difficulty frequently met with in cases of congenital heart disease discovered for the first time at school routine medical inspection. Cases do present themselves in which the cardiac lesion is obviously congenital and yet the symptoms are those of active rheumatism. There seems no reason to doubt the possibility of a rheumatic infection being superimposed upon a congenital abnormality, and it would appear to be necessary to treat such cases with caution. To treat them as rheumatic seems to be the wisest policy.

The development of the maternity and child welfare service and the routine examination of children from birth should eliminate some of the difficulties in regard to these cases.

With regard to the clinical signs found in the heart, many hundreds of cases are seen regularly at the clinics showing slight lengthening and softening of the first mitral sound or even a local apical bruit. With the exception of an occasional pain in a limb or joint, many of these children seem extremely active, with no languid periods, and the parents often find it difficult to realise the possibility of any heart abnormality being present. To curtail the child's activities is even more difficult. Considerable experience of supervisory work in connection with this type of case makes it doubtful whether such curtailment of activity is either practicable or necessary, and a more or less complete return to normality by the end of school life is a frequent finding.

Choreiform Movements.—Large numbers of children are referred to the clinics on account of abnormal muscular movements. Only a small percentage of these are immediately or subsequently diagnosed as cases of chorea.

The restless, fidgety, active child of a tired or anxious mother is frequently seen because he is getting "on his parent's nerves" and must be suffering with "St. Vitus' dance or something."

The child with blepharospasm, resulting from conjunctivitis or blepharitis, the child with habit spasms of the facial muscles, the dull and backward child and the mentally defective, whether associated with cerebral lesions or not, often show invol-

untary and inco-ordinated movements. One may be tempted to consider such as cases of rheumatic origin, but close observation over long periods indicates that although the abnormal movements may recur at intervals or be extremely persistent, the heart shows little tendency to become involved.

It is a significant fact that few of the nervous, excitable children who are seen periodically at the clinics and considered as so-called "pre"-choreic children do eventually develop chorea, whereas most of our true cases of chorea give a history of acute onset and attend for the first time at the rheumatism clinics with the condition already well established.

Sedimentation Test.—Within the last few years the erythrocyte sedimentation rate has been widely used as a test for rheumatic infection. A high rate of fall of the red cells in cases where tuberculous infection can be excluded is considered as evidence of active rheumatic infection. As an aid to diagnosis and as a guide to the results of treatment it may therefore be of some value. The simplicity of the technique and the apparatus required brings it within the reach of the busiest of general practitioners. Here again, however, a word of warning is required. The low readings found in cases of uncomplicated chorea have been confirmed by many workers. In the case of the child suffering from limb and joint pains, the test can only be of value if repeated frequently and the results of each test carefully recorded. A series of high readings in an individual child is strong evidence in support of a diagnosis of active rheumatism even if the clinical symptoms and signs are only very slight. Although the test is simple to carry out, it is essential to have standard materials and reagents and a similar technique for all cases. The temperature of the surrounding air, and to a lesser extent the bore of the capillary tube, may effect the reading. It is possible that exercise, time of day, sunlight and the time of test in relation to meals may also be responsible for the variations in results obtained and for the consequent fairly widely divergent opinions on the value of the test as an aid to the diagnosis of juvenile rheumatism.

General Remarks.—To prevent a rheumatism supervisory and treatment scheme from becoming unwieldy from the medical officer's point of view and unreliable from the statistician's point of view, it is essential that a clear-cut picture of the true rheumatic child be constantly kept in view. Each sign and symptom must be noted and given its true value and a decision come to on the sum of the results obtained as to whether the case is truly rheumatic or not. The possible fallacies with regard to each individual sign or symptom must be constantly borne in mind.

Briefly, the typical rheumatic child is the rather pale child who has periodic bouts of languor and irritability and easily tires on even moderate exertion. Vague pains in the thighs and behind the knees and upper arms without cause may be complained of. Where early carditis is appearing, the sleeping pulse is rapid and the heart may show myocardial abnormality in the form of slight outward displacement of the apex beat with softening and lengthening of the first mitral sound in the erect posture. When such abnormalities cannot be considered as the result of other acute or chronic diseases, and when the erythrocyte sedimentation rate is repeatedly high, a diagnosis of rheumatic infection is justified and appropriate supervision or treatment to prevent or minimise the serious sequelae of this disease is essential.

IX.—LLANDOUGH HOSPITAL.

Report for 1935 of David G. Morgan, M.R.C.S., L.R.C.P., Medical Superintendent of Llandough Hospital.

The work of the various departments of the hospital is set out in detail in the tabular statements contained in this report. The comparative statistical table on page 51 demonstrates the increased activity of the hospital in 1935 as compared with 1934. More cases were treated, a greater number of operations were performed, and

there was a very decided increase in the work of the Pathological, X-ray and Physiotherapeutic Departments. More than twice the number of cases were seen at and admitted through the Admission Department at the City Lodge than in 1934. This system is better than direct admission to the hospital, as it allows preference to be given to the more urgent cases and to "weed out" those cases which, in our opinion, would not benefit by hospital treatment. Additionally, there has been a steady increase in the number of "outside" cases who apply for treatment and are, of course, prepared to pay the full maintenance rate. This is a tribute to the hospital, as it shows that its reputation has extended beyond the boundaries of Cardiff. Care is exercised that no *bona fide* Cardiff resident is made to suffer by having to wait for admission due to these cases occupying the beds.

During the year, two very important departments have been opened at the City Lodge in conjunction with Llandough Hospital, viz., the Asthma Clinic and the Fracture Unit. Dr. D. A. Williams writes in detail of the objects and methods of investigation and treatment at the Asthma Clinic (see page 54). He is to be congratulated on the progress it has made and for making this service so acceptable to sufferers from asthma. The Fracture Unit was opened in well-equipped rooms in September, 1935. By the end of the year it had hardly had time to "get going" but there is every indication that much benefit will result from the expert treatment provided, which aims at reducing the period of incapacity and improving the functional results. It should be pointed out that these two departments are among the first in this country to be opened and maintained by a local authority. Mr. A. O. Parker acts as consultant to the Fracture Unit and his addition to the staff of Llandough Hospital is welcomed. Cases which require a prolonged stay in hospital, or an open operation, are transferred from the Unit to Llandough Hospital.

The results of the State examination for nurses are highly satisfactory. During the year the Health Committee have considered various schemes and proposals with a view to establishing a Preliminary Training School and to providing accommodation for additional trained nurses. For the quality of work aimed at, the proportion of nurses to patients is low. The large proportion of side-ward accommodation is also a special feature of the hospital, and this in itself places much more burden on the nursing staff. It is gratifying to know that the Health Committee are fully alive to this deficiency.

The amount of money collected by the Almoner is practically double the amount for 1934. The patients are becoming more and more reconciled to the almoner system, which has proved to be the best for the recovery of cost of maintenance from patients. It is regrettable that no time is available for the other duties which are usually associated with the appointment of an almoner. The Samaritan fund, in spite of the lack of any organised support, is still able to give immediate relief to necessitous cases on discharge.

The hospital is still being visited by representatives of a large number of outside bodies, among them being the London County Council, the Middlesex County Council, the Surgical Section of the Royal Society of Medicine, the Diseases of Children Section of the Royal Society of Medicine, the new Birmingham Hospital Centre, the South Wales Branch of the College of Nursing, the South Western Branch of the Institute of Municipal Treasurers and Accountants, the Royal Sanitary Institute, the Midland Laryngological Society, etc. In addition, numerous individuals, medical and lay, from this country and abroad have come and expressed their appreciation of the construction, equipment and the general standard of work of the hospital.

The Hospital Library Service is a most welcome innovation to the patients. I would like to thank the City Librarian and his staff for their co-operation and help in organising this service. The work is done quietly and efficiently.

STAFF.

The names of the principal members of the staff are included in the list of staff of the Public Health Department on page viii. The nursing staff, in addition to the matron, consists of 29 trained nurses, 75 probationer nurses, 1 male nurse and 1 radiographer-masseuse.

NURSES' TRAINING SCHOOL.

The hospital was provisionally approved by the General Nursing Council as a Training School for Nurses in October, 1933. The trial period of three months was originally carried out at the City Lodge Hospital, Cardiff, but this has now been discontinued and probationers proceed direct to Llandough Hospital for their trial period and three years' general training. On completion of three years' training, nurses are required to sit the hospital examination and the final State examination for admission to the general part of the State Register of Nurses. To the nurse who distinguishes herself most in the hospital examination, the Esther Roffey gold medal is awarded. To those nurses who satisfy the examiners, certificates of training and training school badges are granted. Based on the results of the hospital examination, nurses who so desire are accepted for training for the certificate in midwifery granted by the Central Midwives Board. All student midwives take their training in the Maternity Department of the City Lodge Hospital, which is approved by the Central Midwives Board as a training school for midwives.

Examination Successes during 1935 :—

	<i>Passed.</i>	<i>Failed.</i>
Hospital Final Examination	7	—
Final State Examination	12	—
Certificate of Central Midwives Board	11	—

SOCIAL SERVICE DEPARTMENT.

The Social Service Department of the hospital is in charge of the Almoner. The duties chiefly undertaken by the department are as follows :—

- To interview all patients admitted and discharged and the relatives of all patients who die in the hospital.
- To collect payments for treatment and maintenance as far as possible.
- To prepare County and other accounts for treatment and maintenance.
- To arrange for the admission of patients whose names are on the waiting list.
- To arrange for the transfer to Cardiff Royal Infirmary of patients needing radium treatment.
- To arrange for the admission of County patients, who are admitted on Relieving Officers' orders or on payment of the full maintenance rate.

Number of interviews :—

Patients admitted	3,847
Patients discharged	3,533
Relatives of patients who died	325
Total	<u>7,705</u>

The number of patients treated free of charge was 1,154.

	<i>£</i>	<i>s.</i>	<i>d.</i>
Money collected from patients	3,717	9	3
" " under the provisions of Road			
Traffic Act (Fracture Cases)	98	3	11
	<u>£3,815</u>	<u>13</u>	<u>2</u>

During the year nine cases were transferred to Cardiff Royal Infirmary for radium treatment.

SAMARITAN FUND.

	£	s.	d.
Cash in hand 1st January, 1935	8	8	0
Donations	24	8	10½
Income from collecting boxes in Hospital	8	16	1½
	£41	13	0
Expenditure during 1935	26	1	7
Balance in hand 31st December, 1935	£15	11	5

Necessitous persons to the number of 182 were assisted to pay 'bus fares.

Two patients were sent to the Women's Holiday Home, Porthcawl, the cost of transport and two weeks' maintenance being paid.

HOSPITAL LIBRARY SERVICE.

The hospital library service has been in operation since August, 1935. A special room equipped with shelves, etc., is set aside for the library, and a book trolley and other internal equipment have been provided. The service is in charge of a member of the Cardiff Library staff, who has the key of the library in order to ensure that there shall be no unauthorised borrowing. Books are distributed to the patients in the wards on Tuesday and Friday afternoons. Voluntary assistance is given in the distribution of books by the Order of St. John and the British Red Cross Society from the Penarth area.

The library was started with a stock of 350 books, most of which were presented. It is changed and supplemented from the stock of the Public Library as required. The frequency of exchange necessary to keep the stock fresh will depend upon experience. The patients are, of course, constantly changing and, even if a patient should read a book a day, it would take twelve months to exhaust a stock of 350 books. Patients are also able to ask for special books, which are supplied as far as possible from the Public Library.

In preparing the stock it has been kept in mind that it is essential that the books should be new and clean and that they be live and up-to-date. In fact, as far as possible, the patients are in the same position as if they were able to borrow books in the ordinary way from public libraries.

The way in which this service is appreciated is demonstrated by the fact that during the few months since its inception the library has issued a total of 3,043 volumes, 1,317 of which have been borrowed by male patients and 1,726 by female patients.

TIME-TABLE OF CONSULTANTS' ATTENDANCES.

Monday	Morning	{ Mr. D. J. Harries, Surgeon. Dr. W. Parry Morgan, Bacteriologist. Dr. T. Garfield Evans, Radiologist.
	Afternoon	Mr. A. O. Parker, Orthopaedic Surgeon.
Tuesday	Morning	{ Dr. A. A. Prichard, Aural Surgeon. Dr. A. G. Watkins, Physician for Diseases of Children. Dr. T. Garfield Evans, Radiologist.
	Afternoon	{ Professor A. M. Kennedy, Physician. Mr. D. J. Harries, Surgeon. Dr. H. G. Greaves, Anaesthetist.

Wednesday	Morning	Professor A. M. Kennedy, Physician.
	Afternoon	Professor G. I. Strachan, Gynaecologist.
Thursday	Morning	{ Mr. D. J. Harries, Surgeon. Dr. T. Garfield Evans, Radiologist.
	Afternoon	{ Mr. R. D. Owen, Aural Surgeon. Dr. H. G. Greaves, Anaesthetist.
Friday	Morning	Professor A. M. Kennedy, Physician.
	Afternoon	{ Dr. A. G. Watkins, Physician for Diseases of Children. Mr. D. J. Harries, Surgeon. Mr. W. E. Hallinan, Dentist.
Saturday	Morning	{ Professor G. I. Strachan, Gynaecologist. Dr. H. G. Greaves, Anaesthetist.

In addition to the regular attendances of the Professor of Medicine, frequent visits are made by his assistants from the Welsh National School of Medicine.

The Professor of Pathology or his assistants attend when required.

TIME-TABLE OF ADMISSION CLINICS.

Monday	....	Afternoon	Admission department open for medical cases and Asthma Clinic (Dr. D. A. Williams).
Tuesday	....	Afternoon	Admission department open for surgical cases (Dr. G. H. Garfield).
Thursday	....	Afternoon	Admission department open for medical cases and Asthma Clinic (Dr. D. A. Williams).
Friday	....	Afternoon	Admission department open for surgical cases (Dr. G. H. Garfield).

STATISTICS.

BEDS.

Male	....	Medical	....	....	68	
		Surgical	....	....	62	
					—	130
Female	....	Medical	....	....	68	
		Surgical	....	....	34	
		Gynaecological	....	....	34	
					—	136
Children	....	General	....	....	70	
		Ear, Nose and Throat			9	
					—	79
					—	
		Total	....	....		345
						—

Beds—

Average daily complement	....	....	....	345	
Average daily number available	....	....	....	342	
Average daily number occupied	....	....	....	293	
Average daily percentage occupied	....	....	....	86	
Average length of stay of patients—days	....	....	....	27·7	
Average number of patients per occupied bed per annum	....	....	....	13·2	
Average number of admissions daily	....	....	....	10·5	
Nursing staff—average strength daily	....	....	....	107	
Average number of occupied beds per nurse	....	....	....	2·7	
Maximum number of beds occupied	....	....	....	332	on 28th March, 1935.
Minimum number of beds occupied	....	....	....	228	on 30th December, 1935.

PATIENTS.

Patients in Hospital on 1st January, 1935	....	....	....	251	
Admitted	....	....	....	3,847	4,098
Discharged	....	....	....	3,533	
Died	....	....	....	325	
Patients treated to a conclusion	....	....	....	—	3,858
Patients in Hospital on 31st December, 1935	....	....	....	240	
Patients admitted from City of Cardiff	....	....	....	3,350	
Patients admitted from Administrative County of Glamorgan and other areas	....	....	....	497	
Patients discharged in the normal manner	....	....	....	3,449	
Patients discharged against medical advice	....	....	....	84	
Deaths	....	....	....	325	
Total	....	....	....	—	3,858
Patients discharged to :—					
Their own or relatives' homes	....	....	....	3,184	
Cardiff Public Assistance Institution	....	....	....	306	
Other institutions or hospitals	....	....	....	43	
Deaths	....	....	....	325	
Total	....	....	....	—	3,858

Classification of Patients treated to a conclusion.

Male patients :—

Under 2 years	....	....	....	95	
Over 2 and under 16 years	....	....	....	449	
Over 16 years	....	....	....	1,299	1,843

Female patients :—

Under 2 years	....	....	....	62	
Over 2 and under 16 years	....	....	....	378	
Over 16 years	....	....	....	1,575	2,015
Total	....	....	....	—	3,858

Results of Treatment or the Termination.

	Number.	Percentage.
Cured	2,215	57·4
Improved	941	24·4
No change	370	9·6
Worse	7	0·2
Died	325	8·4

Analysis of Deaths.

Age at Death—Years	Males	Females	Totals	Percentage of Total
Under 1	13	8	21	6·5
1 — 2	6	7	13	4·0
2 — 5	2	5	7	2·2
5 — 15	10	12	22	6·8
15 — 25	7	9	16	5·0
25 — 35	10	8	18	5·5
35 — 45	27	16	43	13·2
45 — 55	28	18	46	14·2
55 — 65	40	29	69	21·3
65 — 75	39	14	53	16·1
Over 75	11	6	17	5·2
Totals	193	132	325	100·0

	Treated	Percentage of Total	Died	Case Mortality per cent.
Medical Cases	1,498	39	215	14·4
Surgical and Gynaecological	2,360	61	110	4·7

	Number.	Percentage of Total.
Deaths within 24 hours of admission	37	11·4
Deaths 24 to 48 hours after admission	30	9·2
Deaths 48 to 72 hours after admission	28	8·6
All other deaths	230	70·8
Total	325	100·0
Number of inquests	12	

Classification of the Diseases and Conditions for which the 3,858 discharged patients were primarily treated.

	Males		Females		Totals
	Discharged	Died	Discharged	Died	
Diseases due to Infection :—					
Erysipelas	2	—	1	—	3
Influenza	7	—	7	—	14
Pneumococcal infection—Lungs	36	14	23	6	79
Miscellaneous	—	1	—	2	3
Rheumatic Fever—Acute with carditis	10	—	19	—	29
Acute without carditis	4	—	5	—	9
Sub-acute with carditis	5	1	20	—	26
Sub-acute without carditis	9	—	12	—	21
Chorea with carditis	8	—	10	—	18
Chorea without carditis	3	—	5	—	8
Syphilis (congenital, primary, secondary)	1	—	3	—	4
Tuberculosis—Lungs	17	4	18	2	41
Brain and meninges	—	6	—	7	13
Intestines and peritoneum	5	—	2	—	7
Genito-urinary	3	—	1	1	5
Bones and joints	7	2	2	—	11
Glands	6	—	5	—	11
Miscellaneous	1	—	2	—	3
Miscellaneous	11	2	1	—	14
Diseases of the Nervous System :—					
Peripheral neuritis, sciatica, neuralgia	9	—	7	—	16
Tabes dorsalis	5	1	3	—	9
Disseminated sclerosis	2	—	—	—	2
Other diseases of the spinal cord	3	—	2	—	5
Inflammation of cerebral meninges	—	1	—	1	2
General paralysis of the insane and syphilis of the meninges	4	—	4	—	8
Paralysis agitans	2	—	—	—	2
Haemorrhage, embolism and thrombosis of cerebral meninges	3	6	2	5	16
Injuries of brain	11	—	3	—	14
Epilepsy	11	—	3	—	14
Mental deficiency	3	—	—	—	3
Mental diseases	1	—	2	—	3
Psycho-neuroses	20	—	47	—	67
Other diseases of the nervous system	3	—	—	—	3
Diseases of the Eye	2	—	—	—	2
Diseases of the Ear :—					
Diseases of the middle ear, including antrum	7	—	—	—	7
Diseases of the mastoid process	15	1	17	—	33
Otitis media	7	—	9	1	17
Other diseases of the ear	8	—	3	—	11
Diseases of the Nose :—					
Inflammation of mucous membrane	7	—	3	—	10
Diseases of the septum nasi	12	—	3	—	15
Diseases of the accessory sinuses	5	—	11	—	16
Other conditions	6	—	13	—	19
Diseases of the Circulatory System :—					
Diseases of the pericardium	—	—	1	1	2
Diseases of the endocardium	6	2	7	3	18
Mitral stenosis and mitral regurgitation	4	1	22	2	29
Aortic stenosis and aortic regurgitation	15	6	4	—	25
Diseases of the myocardium	9	6	8	9	32
Auricular fibrillation	2	—	12	3	17

	Males		Females		Totals
	Discharged	Died	Discharged	Died	
Diseases of the Circulatory System—cont.					
Other diseases of the heart	3	1	5	—	9
Arterio-sclerosis	28	10	18	3	59
Aneurysm and aortitis (syphilitic)	1	2	—	—	3
Thrombosis and embolism	4	—	2	1	7
Vasomotor disorders	3	—	—	—	3
Essential hypertension	3	—	10	1	14
Diseases of the veins	6	—	5	—	11
Diseases of Blood, Blood-forming Organs and Lymphatic System :—					
Purpura	1	2	—	—	3
Pernicious anaemia	3	1	2	2	8
Achlorhydric anaemia	1	—	1	—	2
Secondary anaemia	1	—	12	—	13
Leukaemia	1	1	—	1	3
Diseases of the lymphatic system	14	2	15	2	33
Diseases of the Endocrine Glands :—					
Exophthalmic goitre	1	—	3	—	4
Toxic adenoma	1	1	11	—	13
Goitre	1	—	1	—	2
Other conditions	1	—	4	—	5
Diseases of the Breast	1	—	10	—	11
Diseases of the Respiratory System :—					
Diseases of the larynx and pharynx	2	—	5	—	7
Bronchitis—Acute	10	1	12	—	23
Chronic	20	1	17	1	39
Bronchiectasis	4	—	3	—	7
Asthma—secondary	2	—	—	—	2
Broncho-pneumonia	16	5	20	9	50
Fibrosis of lung	4	—	2	—	6
Embolism and thrombosis of pulmonary arteries	—	—	2	—	2
Emphysema	4	—	—	—	4
Pleurisy and other diseases of the pleura	7	—	8	—	15
Empyema	1	3	3	1	8
Other diseases of the respiratory system	2	5	2	1	10
Diseases of the Digestive System :—					
Diseases of the lips, mouth, jaws and palate	3	—	1	—	4
Tonsillitis and quinsy	41	—	46	—	87
Enlarged tonsils and/or adenoids	201	—	223	—	424
Gastritis	14	—	21	—	35
Enteritis and gastro-enteritis	19	4	11	1	35
Gastric ulcer	47	1	10	1	59
Gastric ulcer—perforated	5	2	1	1	9
Duodenal ulcer	21	—	3	—	24
Appendicitis—Acute	43	7	39	—	89
Sub-acute and chronic	44	—	57	—	101
Colitis	3	—	4	1	8
Hernia—Inguinal	129	—	13	—	142
Femoral	3	—	4	—	7
Umbilical and ventral	1	—	6	—	7
Miscellaneous	5	—	—	—	5
Strangulated	3	4	3	1	11
Intussusception	1	—	1	—	2
Volvulus	1	—	1	—	2
Visceroptosis	—	—	1	—	1
Diverticula of colon	3	3	—	—	6
Intestinal obstruction	2	4	—	3	9
Constipation	21	—	15	—	36
Ischio rectal abscess	22	—	8	—	30
Fistulae, including fissures of the anus	4	—	6	—	10
Haemorrhoids	46	—	15	—	61
Prolapse of rectum	1	—	1	—	2
Pancreatitis	1	1	—	—	2
Infective jaundice	2	—	1	—	3

	Males		Females		Totals
	Discharged	Died	Discharged	Died	
Diseases of the Digestive System— <i>cont.</i>					
Cholecystitis	6	1	13	1	21
Calculi of gall bladder	3	—	22	2	27
Adhesions following operation	4	—	3	—	7
Pyloric stenosis	1	—	—	—	1
Other conditions	8	3	9	—	20
Diseases due to Disorders of Nutrition or Metabolism :—					
Diabetes mellitus	8	4	17	6	35
Marasmus	2	2	4	1	9
Feeding difficulties	2	—	2	—	4
Asthma— <i>allergic</i>	33	—	27	—	60
Other allergic conditions	12	—	21	—	33
Rickets	6	—	—	1	7
Other metabolic diseases	1	—	—	—	1
Diseases of the Generative System :—					
Senile enlargement of the prostate	28	10	—	—	38
Other diseases of the male generative organs	76	2	—	—	78
Diseases of the ovary	—	—	3	1	4
Salpingitis	—	—	21	2	23
Diseases of the uterine ligaments and adjacent peritoneum	—	—	17	—	17
Metritis	—	—	13	—	13
Endometritis	—	—	38	—	38
Chronic inflammation of the cervix	—	—	103	—	103
Displacement of uterus	—	—	31	—	31
Diseases of vagina	—	—	15	—	15
Diseases of the vulva, clitoris and urethra	—	—	4	—	4
Amenorrhoea	—	—	8	—	8
Dysmenorrhoea	—	—	15	—	15
Menorrhagia and metrorrhagia	—	—	6	—	6
Abortion	—	—	129	2	131
Ectopic gestation	—	—	6	1	7
Sterility	—	—	4	—	4
Toxaemias of pregnancy	—	—	24	—	24
Dispareunia	—	—	1	—	1
Diseases of the Bones, Joints, Muscles and Fasciae :—					
Osteitis	2	—	1	—	3
Osteomyelitis—Acute and chronic	9	1	4	2	16
Arthritis—Acute	1	—	2	—	3
Chronic	5	—	3	—	8
Rheumatoid arthritis	4	—	4	—	8
Diseases of the tendons and sheaths of tendons	—	—	2	—	2
Diseases of the bursae	1	—	9	—	10
Displaced internal semilunar cartilage	3	—	—	—	3
Other diseases	22	—	13	—	35
Diseases of the Areolar Tissue and Skin :—					
Cellulitis	3	1	4	1	9
Boils, carbuncles or abscesses	25	1	20	2	48
Dermatitis, eczema or impetigo	3	—	3	—	6
Erythema nodosum	1	—	10	—	11
Other diseases of the skin	3	—	6	1	10
Diseases of the nails	1	—	1	—	2
Diseases of the Urinary Organs :—					
Glomerulo-tubular nephritis—Acute and sub-acute	12	2	5	1	20
Chronic	4	2	4	4	14
Arterio-sclerotic kidney	5	5	4	4	18
Pyelonephritis and pyonephrosis	1	1	3	—	5
Pyelitis	7	—	27	1	35
Perinephritis and perinephric abscess	1	—	3	—	4
Renal calculus	12	2	8	1	23

	Males		Females		Totals
	Discharged	Died	Discharged	Died	
Diseases of the Urinary Organs— <i>cont.</i>					
Cystitis	2	—	6	3	11
Vesical calculus	2	—	—	—	2
Urinary disorders	3	—	—	—	3
Injuries :—					
Burns and scalds	2	—	3	1	6
Poisoning	—	—	4	—	4
Wounds and bruises	9	—	4	—	13
Multiple and miscellaneous injuries	25	—	14	—	39
Fractures—Skull	2	1	—	—	3
Bones of face and jaw	3	—	—	—	3
Clavicle	4	—	—	—	4
Humerus	5	—	2	—	7
Radius	2	—	2	—	4
Small bones of hand and wrist	2	—	1	—	3
Ribs	1	—	—	—	1
Femur	8	1	5	2	16
Tibia	3	—	1	—	4
Fibula	1	—	—	—	1
Tibia and fibula	4	—	1	—	5
Patella	2	—	—	—	2
Small bones of foot	2	—	1	—	3
Miscellaneous	—	—	1	—	1
Dislocations	2	—	4	—	6
Tumours—Benign :—					
Nervous system	1	3	—	—	4
Thyroid glands	2	—	5	—	7
Breast	—	—	1	—	1
Bones	1	—	—	—	1
Lips, mouth, tongue and fauces	2	—	—	—	2
Male generative organs	1	—	—	—	1
Ovary and uterus	—	—	18	—	18
Cervix	—	—	5	—	5
Skin and muscle	—	—	1	—	1
Bladder	1	—	—	—	1
Miscellaneous regions	—	—	2	1	3
Tumours—Malignant :—					
Breast	—	—	8	2	10
Respiratory system	3	5	—	—	8
Bones	4	—	5	—	9
Lips, mouth, tongue and fauces	2	—	—	—	2
Pharynx, larynx and oesophagus	2	3	1	—	6
Stomach	3	6	2	2	13
Intestines	2	7	1	3	13
Rectum and anus	6	2	4	1	13
Pancreas, liver and gall bladder	1	2	3	2	8
Male generative organs	1	3	—	—	4
Ovary and uterus	—	—	8	2	10
Cervix	—	—	9	1	10
Bladder	—	1	2	—	3
Prostate	3	2	—	—	5
Miscellaneous regions	3	—	1	—	4
Cysts	5	1	13	1	20
Lipoma	1	—	4	—	5
Malformations	6	—	10	3	19
Miscellaneous :—					
Other diseases	35	4	36	1	76
No abnormality detected	17	—	17	—	34
Totals	1,650	193	1,883	132	3,858

Summary of Diseases and Conditions in Order of Frequency.

Diseases of the digestive system	....	....	776
Diseases of the eye, ear, nose and throat	....	....	641
Diseases of the generative organs	....	....	560
Diseases due to infection	....	....	319
Diseases of the circulatory system	....	....	291
Tumours	....	....	186
Diseases of the respiratory system	....	....	173
Diseases of the nervous system	....	....	164
Diseases of the urinary organs	....	....	135
Injuries	....	....	125
Diseases of the bones, joints, muscles, etc.	....	....	88
Diseases of the areolar tissue and skin	....	....	86
Other diseases	....	....	314

WORK OF DEPARTMENTS.

Pathological	....	Investigations	....	6,148
Surgical	....	Major operations	....	1,266
		Minor operations	....	714
Dental	....	Patients	....	109
		Attendances for treatment	....	143
Radiological	....	Patients investigated	....	1,371
		Number of investigations	....	2,282
Massage	....	Patients	....	45
		Treatments	....	826
Ultra-Violet Light	....	Patients	....	89
		Treatments	....	802
Admission	....	Patients seen	....	2,986
Nurses' Sick Room	....	Number of admissions	....	58

PATHOLOGICAL DEPARTMENT.

Analysis of Investigations.

Pus—Stained smears for organisms	....	....	68
Cultures for organisms	....	....	1
Smears—Stained for gonococci	....	....	33
Blood—Counts (full)	....	....	697
Leucocyte counts	....	....	865
Platelet counts/reticulocyte counts	....	....	48
Coagulation bleeding time	....	....	9
Grouping	....	....	19
Chemical investigations	....	....	318
Cultures for organisms	....	....	3
Cerebro-spinal fluid—various investigations	....	....	111
Pleural fluid—various investigations	....	....	18
Urine—Microscopy of centrifugal deposit	....	....	1,304
Bacteriological investigations	....	....	70
Chemical investigations	....	....	1,676
Fractional test meals	....	....	197
Sputum—Stained smears for tubercle bacilli	....	....	252
Faeces—Bacteriological investigations	....	....	22
For occult blood	....	....	7
Chemical investigations	....	....	13
Miscellaneous investigations	....	....	30
Pathological sections reported	290
Post-mortem examinations	60
Clinical photographs	37

Total	6,148
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In addition to the above-mentioned investigations, which were conducted at the Hospital Laboratory, many ear, nose and throat swabs and specimens of blood for the Wassermann reaction were examined at the Cardiff and County Public Health Laboratory.

ANALYSIS OF OPERATIONS PERFORMED.

	Major	Minor	Totals
On skin and superficial structures	17	83	100
On arteries, veins and lymphatics	6	26	32
On nerves	3	4	7
On bones and joints	34	82	116
On muscles, tendons, bursae and fasciae	2	—	2
Amputations	15	8	23
On skull, brain and spine	6	3	9
On mouth, pharynx and oesophagus	10	13	23
On thyroid and accessory glands	20	—	20
On breast	1	7	8
On thorax and contents	19	6	25
On abdominal wall and cavity	428	2	430
On stomach and duodenum	31	—	31
On intestines, rectum and anus	69	49	118
On liver, gall bladder, pancreas and spleen	30	—	30
On kidney and urinary tract	76	5	81
On male generative organs	43	53	96
On female generative organs	295	41	336
On ear, nose and throat	160	332	492
Unclassified	1	—	1
Totals	1,266	714	1,980

Operations performed by Consultant Staff 939

Operations performed by Resident Medical Staff 1,041

DENTAL DEPARTMENT.

Number of patients treated 109

Attendances for treatment 143

Attendances.

For extractions under general anaesthetic 82

For extractions with local anaesthetic 58

For extractions without anaesthetic 1

For examinations without extractions 2

Total 143

Total number of teeth extracted 525

RADIOLOGICAL DEPARTMENT.

Analysis of Investigations.

	Appearances		Totals	Percentage of Appearances Abnormal
	Normal	Abnormal		
Skull for injury	27	7	34	20·6
Skull and contents for disease or deformity	35	37	72	51·4
Lungs and mediastinum	87	200	287	69·7
Pleura and pleural conditions	10	50	60	83·3
Heart and aorta	5	9	14	64·3
Oesophagus, stomach and intestines	278	446	724	61·6
Biliary passages	79	75	154	48·7
Urinary system	100	149	249	59·8
Generative system	3	3	6	50·0
Bones and joints for injury	95	153	248	61·1
Bones and joints for disease or deformity	150	233	383	60·8
Miscellaneous—for foreign bodies, etc.	—	9	9	100·0
Dental	29	22	51	43·1
Totals	898	1,384	2,282	60·8

Special Methods of Investigation :—

Barium meals	180
Barium enemata	51
Cholecystograms	154
Lipiodol injections	33
Urograms—intravenous....	89
Total	507

Number of patients investigated	1,371
Average number of investigations per patient	1·7
Average number of investigations per discharged patient	0·59

MASSAGE AND LIGHT DEPARTMENT.

	Massage	Ultra-violet Light
Patients treated	45	89
Remaining under treatment on 31st December, 1935	8	9
Patients discharged from department	37	80
Number of treatments	826	802

	Number.	Percentage.
Medical massage cases	754	91
Surgical massage cases	72	9
Total	826	100

NURSES' SICK-ROOM.

Complement of nursing staff on 31st December, 1935	109
Average daily complement of nursing staff	110
Average daily complement of nurses available for duty	107
Nurses off duty sick during the year	52*
Nursing days lost (sick leave included)	1,160
Average number of nursing days lost per annum :—	
Per sick nurse	22·3
Per nurse of the average daily complement	10·5

*Six nurses off duty twice, making 58 admissions to the nurses' Sick-room.

<i>Disabilities.</i>	<i>Number.</i>
Rheumatism	5
Ear, nose and throat conditions	22*
Septic conditions of skin	4
Influenza	3
General debility	4
Bronchitis	1
Pulmonary tuberculosis	1
Gynaecological	1†
Gastric disturbance	8
Ulcerative colitis	1‡
Thrombosis	1
Injuries	4
Scarlet fever	1||
Chickenpox ...	1||
Typhoid fever	1||
Total	58

*Including 3 minor operations. †Minor operation. ‡Died. ||Transferred to Isolation Hospital.

COMPARATIVE TABLE.

	1934	1935
Beds—		
Average daily complement	345	345
Average daily number available	343	343
Average daily number occupied	292	293
Average daily percentage of available beds occupied	85	86
Average number of patients per occupied bed	12·8	13·2
Average daily complement of nursing staff available	102	107
Average daily number of admissions	10·2	10·5
Patient days	106,590	106,859
Average length of stay per patient in days	28·5	27·7
Medical cases	1,404	1,498
Surgical cases	2,336	2,360
Total cases treated to a conclusion	3,740	3,858
Percentage of patients—		
Cured or recovered from acute attack	58·6	57·4
Improved	27·0	24·4
No change	6·5	9·6
Worse	0·2	0·2
Died	7·7	8·4
Pathological investigations	5,263	6,148
Operations—		
Major	991	1,266
Minor	928	714
Dental—		
Patients treated	115	109
Treatments	180	143
Radiological—		
Patients investigated	1,222	1,371
Investigations	2,193	2,282
Massage—		
Patients treated	64	45
Treatments	974	826
Ultra-violet Light—		
Patients treated	64	89
Treatments	581	802
Patients seen at Admission Department	1,222	2,986
Admissions to Nurses' Sick-room	47	58
Sum received at Hospital for treatment and maintenance ...	£1,947 3s. 7d.*	£3,815 13s. 2d.

*February to December.

FRACTURE UNIT.

The Fracture Unit at the City Lodge, Cardiff, was opened in September, 1935. From its inception to December 31st, 1935, a total of 73 patients were referred to the Unit for treatment from the following sources:—

Private Practitioners	....	....	....	....	38
Police	....	....	....	....	3
Other Sources	....	....	....	....	32
					—
Total	....	....	....	....	73
					—

The patients were dealt with in the following manner:—

As in-patients at—

(a) City Lodge (Fracture Unit Beds)	....	....	....	12
(b) City Lodge (Other Beds)	....	....	....	6
(c) Llandough Hospital	....	....	....	2

As out-patients at the Unit	....	....	....	....	53
					—
Total	....	....	....	....	73
					—

The number of attendances made by the 53 out-patients was 223 and the following conditions were treated:—

Fractures.—

Bones of face and jaw	....	....	....	1
Clavicle	....	....	....	4
Humerus—Head and neck	....	....	....	2
Condylar and supra-condylar	....	....	....	4 (1 compound)
Radius—Shaft	....	....	....	6
Colles'	....	....	....	13
Ulna—Shaft	....	....	....	4
Styloid	....	....	....	3
Ribs	....	....	....	1
Spine—Lumbar	....	....	....	1
Femur—Upper end	....	....	....	1
Lower end	....	....	....	1
Tibia—Shaft	....	....	....	5 (compound)
Lower end	....	....	....	3
Fibula—Shaft	....	....	....	2 (1 compound)
Lower end	....	....	....	2
Patella	....	....	....	1
Small bones of foot—Midtarsals	....	....	....	1
Metatarsals	....	....	....	1
Phalanges	....	....	....	2

Dislocations (Simple).—

Upper limb—Elbow	....	....	....	1 (1 compound)
Wrist and hands	....	....	....	1

Fracture dislocations.—

Upper limb—Elbow	....	....	....	1
Ligamentous injuries	....	....	....	2
Synovitis	....	....	....	8
Nothing abnormal detected	6
Miscellaneous	7
Old fractures (Consultations)	3

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ASTHMA CLINIC.

Report by D. A. Williams, B.Sc., M.B., B.Ch.

In February, 1935, an asthma clinic was commenced at the City Lodge Hospital on Mondays at 2 p.m. in connection with the usual session of the Admission Department of Llandough Hospital. The number of patients seeking advice so increased that it was found necessary to add another session on Thursdays at 2 p.m., and in August the assistance of another medical officer was enlisted.

The work has been done under the direction of Professor A. M. Kennedy, M.D., F.R.C.P., Director of the Medical Unit, Welsh National School of Medicine, who has carefully guided my path through the allergic maze while I was one of his assistants on the Medical Unit and since I have been at Llandough Hospital.

In 1927, two men, both long sufferers from asthma, wrote to the press drawing attention to the great suffering caused by asthma and urging the need for organised research for the alleviation of this condition. As a result, in October, 1927, the Asthma Research Council came into being. Since that time, under the guidance of and as the result of financial support given by the Council, considerable advances have been made in the knowledge and treatment of asthma. Asthma clinics have been established in various parts of the country, and as the result of their work a large proportion of cases are relieved or even cured.

It is this comparatively recent development in the knowledge and treatment of asthma, holding out the possibility of relief and even cure, which has been the stimulating factor in the establishment of the asthma clinic in Cardiff, which, as far as I am aware, is the first asthma clinic in the country to be established by a municipal authority.

The asthmatic patient's struggle for breath results from a swelling of the lining membrane, with probably some spasm of the muscle in the smallest bronchial tubes. These changes in the bronchial tubes are set up by the inhalation of certain substances or the eating of certain foods to which the sufferer is peculiarly sensitive. Thus, a patient may suffer from asthma for years by sleeping on feathers or a horse-hair mattress. He is found to be specially sensitive to these substances, and when another type of bedding is substituted he has no more attacks. Again, the eating of certain foods and, strange to say, often ordinary foods, such as white bread, eggs or milk, is the cause of persistent attacks and, not infrequently, a combination of these factors is responsible. Their substitution by other foods is welcome relief to the sufferer.

Foggy weather, damp weather or cold winds possibly play a part as precipitating causes, but these have little or no effect once the underlying causes to which the patient is specially sensitive have been removed.

Asthma is a condition which causes suffering and chronic ill-health and, unless cured or alleviated, remains as a life-long handicap. It reduces the efficiency of those affected enormously, both to themselves and to the community, and sometimes renders them permanent invalids. It frequently starts before the age of 10 years and, the sooner the patient is treated before complications and chest deformities have developed, the more likely is permanent benefit to accrue. It is hoped that the clinic will attract such children particularly.

It is rather surprising that, in spite of the large number of children affected all over the country and the chronic ill-health which results, local authorities hitherto have done little or nothing to help these children. Rheumatic clinics, dental clinics and eye clinics have been established, special schools built for defective children, special arrangements made for dealing with enlarged tonsils and adenoids but, up to now, the unfortunate asthmatics have been allowed to carry on as best they can.

Asthma is not a condition which should be left entirely to hospitals to treat, as the patients require a prolonged period of observation under various conditions and during different seasons of the year. They require continued attention to small details of treatment and in a number of cases special treatment by injections must be carried on for many months. Such requirements cannot adequately be fulfilled in a general hospital without the special provision of a clinic. Hitherto, many patients have not applied for hospital treatment until complications have developed.

Llandough Hospital, with its many side wards, is particularly well adapted for the special investigation of these patients. Patients with asthma are put into rooms which are free from horse-hair mattresses, feather pillows and woollen blankets, and are put on a diet free from wheat, eggs, milk and potatoes. Dunlopillo mattresses or air mattresses, kapok pillows and cotton blankets are substituted for the ordinary equipment and rye bread is substituted for the ordinary white bread. Later, additions are made at suitable intervals to the bedding and to the diet, one article being added at a time and the effect of the addition noted. It is hoped that later it will be possible to arrange a series of special side wards, so that, instead of adding certain articles to the patient's bed, the patient will move from one side ward to another in order to be tested. This will avoid exposing the patient to even minute amounts of dust from feathers or horse-hair mattresses, etc., from the bedding of the previous patient, which is inevitable in the present arrangement. These methods of investigation are particularly valuable in adults. Children, however, with a few exceptions, are notoriously free from attacks while in hospital. A few cases have been treated by ultra-violet light and by injections of liver extract, which have been recommended at other clinics, but the results in these few cases have not encouraged us to continue with these lines of treatment.

Skin tests, which aid in the diagnosis of substances to which the patient is sensitive, are carried out at the hospital and at the clinic. Substances in the market for these tests have given variable results, and it was thought that better results might be obtained by making the test substances ourselves. Not only would we then be able to control our tests by knowing the strength of the preparations and exactly what we were using, but we could save much expense, as these test substances are by no means cheap to purchase.

For this purpose, the services of an expert bio-chemist are essential and we are fortunately placed in having such a person on the staff of the Medical Unit as Mr. J. Ingham, A.I.C., Bio-chemist to the Medical Unit of the Welsh National School of Medicine, who, by permission of Professor A. M. Kennedy, was good enough to start making extracts for skin testing of special substances for individual cases, particularly house dust from the patient's bedroom and routine substances such as wool, horse hair, etc. He has also made extracts for intradermal skin testing of various moulds, which were obtained by exposing plates of Sabouraud's medium in the patient's bedroom. The results so far obtained with these extracts have proved much superior to those obtained from commercial preparations, and it is hoped, with the help of Mr. Ingham, to continue this work.

The intradermal method of skin testing has been more satisfactory than the scratch method, but the latter has its uses. In the hospital it has been shown fairly frequently that negative skin reactions may be obtained to particular foods to which the patient is sensitive. The skin tests, while extremely valuable, are only a guide, and do not replace the taking of a good history of all the circumstances of the illness and careful observations of the patient.

X-ray examinations and fractional test meals are done at the hospital only, but urine and sputum examinations are done at the clinic as well as at the hospital.

The patients are referred to the clinic from other public health clinics, from general practitioners and from Llandough Hospital. No medicines, such as are usually dispensed in a hospital out-patient department, are given. If any special medicines are considered necessary, a letter is sent to the patient's doctor.

The treatment of the cases is directed to the elimination or removal of substances to which the patient is peculiarly sensitive. Patients are advised in detail as to their diet and as to their environment, particularly in regard to their bedroom furnishings. In a large proportion of cases desensitisation against house dust has been carried out, and in a few cases desensitisation has been carried out for individual substances.

Towards the end of the year arrangements were made for the teaching of breathing exercises. These exercises are taught by the Sister in charge of the department and

are those advised by the Asthma Research Council. They are simple breathing exercises which aim at :—

1. Emptying the lungs by increasing the respiratory phase.
2. Re-educating the automatic diaphragmatic movements and diminishing the thoracic type of breathing.
3. Relaxing spasmodically contracted muscles.
4. Mobilizing the ribs and chest wall and correcting kyphosis.

The establishment of this department should enhance the efficiency of the clinic considerably.

Number of patients investigated at Llandough Hospital :—

<i>Children.</i>	<i>Adults.</i>	<i>Total.</i>
22	38	60

Number of patients who attended the Clinic :—

<i>Children.</i>	<i>Adults.</i>	<i>Total.</i>
80	48	128

Total number of attendances 858

Since the establishment of the clinic the number of attendances has steadily increased. During the first 5½ months the number of new patients was 37 and during the second 5½ months the number of new patients was 91. This increase has necessitated the addition of another session and the assistance of another medical officer.

As soon as the clinic became well established it was found necessary to draft special forms for the recording of all particulars so as to facilitate the investigation of the cases and the analysis of the information obtained.

The clinic is becoming more generally known and it is difficult to foresee the extent of its development. It is rapidly out-growing the facilities and the accommodation at the City Lodge Admission Department and at times threatens to be overwhelming.

The establishment of the clinic gives promise that a considerable amount of chronic ill-health and suffering will be relieved and eventually avoided, and that in the course of time some contribution will be added to our knowledge of the causes underlying asthma.

Owing to the short time the clinic has been in existence, no figures can be given of the results, but the faithfulness of the old patients and the increase in the new patients indicate the improvement which is taking place and encourages us to continue the work.

X.—POOR LAW MEDICAL SERVICE.

A summary of the work of the district medical officers during 1935 is given in the following table :—

Name of District	Whether Whole or Part-time D.M.O.	Attendances of Patients at Surgery	Attendances of Patients at Surgery for Medicine only	Visits to Homes of Patients	Average number of individual Patients dealt with weekly
Roath	Whole-time	11,708	3,563	7,883	387
Central	do.	11,358	10,284	2,534	451
Canton	Part-time	3,288	78	1,453	82
South	do.	1,334	876	532	45
Sploott	do.	2,567	844	1,457	75
Adamsdown	do.	5,672	1,815	1,056	147
Gabalfa	do.	888	511	659	33
Llanishen	do.	65	3	133	2
Totals	—	36,880	17,974	15,707	1,222

The following tabular statements show the hospital provision and the work undertaken during 1935 in connection with the institutional treatment of the sick at the City Lodge and Ely Lodge Poor Law Institutions.

CITY LODGE.

(1) Classification of the accommodation for the sick and the number of beds occupied on 31st December, 1935 :—

Classification of Wards	Number of Wards	BEDS							
		Men		Women		Children (under 16 years)		Totals	
		Pro-vided	Occu-pied	Pro-vided	Occu-pied	Pro-vided	Occu-pied	Pro-vided	Occu-pied
Medical	} 7	25	24	46	43	62*	57	133*	124
Surgical		266	262	131	129	—	—	397	391
Chronic Sick	32	10	10	6	2	5	5	21	17
Venereal Disease	2	53	45	21	14	—	—	74	59
Tuberculosis	3	—	—	32	20	—	—	32	20
Maternity	2	4	—	5	3	—	—	9	3
Mental Disease	2	10	5	10	3	—	—	20	8
Other	4								
Totals	52	368	346	251	214	67	62	686†	622

*Including 43 cots.

†The approved number is 604.

(2) In-patients :—

1.	Total number of admissions (including infants born in hospital)	2,719
2.	Number of women confined in hospital	268
3.	Number of live births	247*
4.	Number of still-births	23
5.	Number of deaths among the newly born	10
6.	Total number of deaths among children under one year	28
7.	Number of maternal deaths among women admitted to hospital for confinement	1
8.	Total number of deaths	462
9.	Total number of discharges (including infants born in hospital)	2,280
10.	Duration of stay of patients included in 8 and 9 above :—	
(a)	Under four weeks	1,799
(b)	Four weeks and under thirteen weeks	578
(c)	Thirteen weeks or more	365
11.	Number of beds occupied :—	
(a)	Average during the year	566
(b)	Highest	645
(c)	Lowest	531
12.	Number of surgical operations under general anaesthetic (excluding dental operations)	—
13.	Number of abdominal sections	—

*Twins in two cases.

(3) Out-patients :—

1. Cases after discharge from this hospital and Llandough Hospital attend for continuation treatment. Casualties after treatment are referred to private practitioners or, if urgent, admitted to this hospital or Llandough Hospital.
2. Total number of persons seen in the out-patient department 874
3. Number of these persons who were subsequently admitted for in-patient treatment in the institution 139
4. Number of these persons who had received in-patient treatment in the institution 35
5. Total number of attendances in the out-patient department 2,142

(4) Classification of in-patients who were discharged from or who died in the institution during the year :—

Disease Groups	Children (under 16 years)		Men and Women	
	Dis-charged	Died	Dis-charged	Died
Acute infectious disease	21	—	20	—
Influenza	—	—	—	—
Tuberculosis :—				
Pulmonary	15	1	134	70
Non-pulmonary	8	2	22	4
Malignant disease	—	1	34	52
Rheumatism :—				
Acute rheumatism (rheumatic fever) together with sub-acute rheumatism and chorea	5	—	10	—
Non-articular manifestations of so-called "rheumatism" (muscular rheumatism, fibrositis, lumbago and sciatica)	—	—	8	—
Chronic arthritis	1	—	22	2
Venereal disease	—	—	48	—
Puerperal pyrexia	—	—	1	1
Puerperal fever :—				
Women confined in the hospital	—	—	—	—
Other cases	—	—	5	—
Other diseases and accidents connected with pregnancy and child-birth	—	—	16	2
Mental diseases :—				
Senile dementia	—	—	86	—
Other	2	—	230	—
Senile decay	—	—	17	56
Accidental injury and violence	35	—	104	10
Diseases of the :—				
Nervous system and sense organs	10	2	102	12
Respiratory system	23	3	67	15
Circulatory system	3	3	114	172
Digestive system	8	1	54	9
Genito-urinary system	4	—	63	16
Skin	55	1	90	—
Other diseases	68	13	244	12
Mothers and infants discharged from maternity wards (not included above) :—				
Mothers	—	—	298	—
Infants	234	—	—	—
Persons not falling under any of the above headings	—	3	—	—
Totals	492	30	1,788	432

ELY LODGE.

(1) Classification of the accommodation and the number of beds occupied on 31st December, 1935 :—

Classification of Wards	Number of Wards	BEDS							
		Men		Women		Children (under 16 years)		Totals	
		Pro-vided	Occu-pied	Pro-vided	Occu-pied	Pro-vided	Occu-pied	Pro-vided	Occu-pied
Mental Disease	} 14 { 4	144	136	198	174	4	4	346	314
Mental Defectives*		51	50	38	40†	59	35	148	125
Other		28	26	15	14	—	—	43	40
Totals	18	223	212	251	228	63	39	537	479

* The beds for mental defectives are those recognised for this purpose by the Board of Control.

† Beds transferred in emergency.

(2) In-patients :—

Total number of admissions	....	....	....	....	118
Total number of deaths	....	....	....	....	63
Total number of discharges	....	....	....	....	34

Duration of stay of patients :—

(a) Under four weeks	....	....	....	14
(b) Four weeks and under thirteen weeks	....	....	....	21
(c) Thirteen weeks or more	....	....	....	62

Number of beds occupied :—

(a) Average during the year	....	....	....	480
(b) Highest	....	....	....	490
(c) Lowest	....	....	....	463

(3) Classification of in-patients who were discharged from or who died in the institution during the year :—

Disease Groups	Children (under 16 years)		Men and Women	
	Dis-charged	Died	Dis-charged	Died
Influenza	—	1	—	14
Tuberculosis—Pulmonary	—	—	—	3
Malignant disease	—	—	—	1
Mental diseases :—				
Senile dementia	—	—	29	43
Other	—	—	—	—
Other diseases	—	—	5	1
Totals	—	1	34	62

XI.—HOSPITAL ACCOMMODATION.

The following tabular statement shows the amount of hospital accommodation for the sick and others in need of special care provided by the City Council and other bodies, classified according to the type of function each subserves :—

Institution	Total available Beds	Approximate Number available for Cardiff
Llandough Hospital	345	311
Isolation Hospital	149*	149*
Caerau Smallpox Hospital	31†	31†
Flat Holm Hospital (for Cholera, Yellow Fever and Plague)	16	16
Lord Pontypridd Hospital (Dulwich House)	25	25
City Lodge Poor Law Institution‡ :—		
Acute Diseases	154	
Maternity	32	
Tuberculosis	74	
Mental Cases	9	
Chronic and Aged Infirm	315	
Other	29	
	— 604	520
Ely Poor Law Institution‡ :—		
Mental Cases (including Mental Defectives)	494	
Chronic and Aged Infirm	43	
	— 537	452
Mental Hospital	790	690
Total Rate-provided	2,497	2,194
Cardiff Royal Infirmary :—		
General	380	
Maternity	31	
Convalescent Home	54	
	— 465	260
Prince of Wales' Hospital :—		
General	64	
Country Branch	68	
	— 132	12
Royal Hamadryad Seamen's Hospital	74||	74||
Total Voluntary	671	346
Grand Total	3,168	2,540
Sanatoria and Hospitals of the Welsh National Memorial Association	—	140

*Total adult accommodation on the basis of 144 sq. ft. per adult bed. This represents about 230 available beds and cots when allowance is made for children under 10 years.

†On the basis of 154 sq. ft. per adult bed, representing about 48 available beds when allowance is made for children under 10 years.

‡The accommodation for chronic and aged infirm in the City Lodge and Ely Institutions and for patients suffering from mental diseases, disorders or defects at Ely Institution fluctuates slightly with requirements. Many of the beds set apart for chronic cases at the City Lodge are really occupied by patients requiring continuous medical or surgical and nursing care. The figures for Ely Institution also include accommodation approved by the Board of Control for mental defectives (about 150) who are chargeable to the Mental Deficiency Committees of the Authorities responsible for their maintenance.

||For seamen only.

XII.—TUBERCULOSIS.

New Cases of Tuberculosis.—The following tables show the age distribution and localisation of the disease among new cases of tuberculosis* coming to the knowledge of the department during 1935.

Cases of Tuberculosis by Age and Sex :—

Age Periods— Years	New Cases					
	Tuberculosis of the Respiratory System			Other Forms of Tuberculosis		
	Males	Females	Totals	Males	Females	Totals
0—1	1	—	1	2	3	5
1—5	1	1	2	7	15	22
5—10	2	2	4	6	12	18
10—15	5	10	15	11	8	19
15—20	17	18	35	5	7	12
20—25	21	33	54	1	10	11
25—35	36	32	68	6	9	15
35—45	34	24	58	10	5	15
45—55	28	11	39	3	—	3
55—65	16	9	25	3	2	5
65 and upwards	5	6	11	1	—	1
Totals	166	146	312	55	71	126

Cases of Tuberculosis by Localisation of Disease and Sex :—

Form of Tuberculosis	New Cases		
	Males	Females	Totals
Respiratory System	166	146	312
Nervous System	5	17	22
Intestines and Peritoneum	2	7	9
Vertebral Column	5	6	11
Bones and Joints	19	2	21
Disseminated Tuberculosis	3	4	7
Other Forms	21	35	56
Totals	221	217	438

Sources of Ascertainment.—The new cases of tuberculosis were ascertained as follows :—

Source	Tuberculosis of Respiratory System	Other Forms of Tuberculosis	Totals
General Medical Practitioners	88	16	104
Welsh National Memorial Association	129	45	174
Medical Officers of Institutions	79	56	135
Other Medical Officers	10	—	10
Otherwise ascertained	6	9	15
Totals	312	126	438

* Including cases notified after death, deaths of cases not notified and cases ascertained otherwise than by formal notification.

Home Conditions of New Cases.—A detailed analysis is given below showing the living and sleeping conditions within their own tenements of 278 new cases of tuberculosis of the respiratory system at the time of their coming to the knowledge of the department during 1935.

Living accommodation of 278 Patients in Private Houses :—

Rooms in Tenement (i.e., house or part of house occupied by one family)	Patients			Total Number of Persons in Household			
	Males	Females	Totals	Over 10 years	Under 10 years	Lodgers	Totals
1 room	6	6	12	12	1	—	13
2 rooms	18	14	32	66	24	—	90
3 rooms	18	11	29	83	25	—	108
4 rooms and over	106	99	205	916	127	5	1,048
Totals	148	130	278	1,077	177	5	1,259

In addition to the foregoing 278 cases, there were 10 cases (7 males and 3 females) in institutions and 7 males in lodging houses at the time of notification. Information as to the living accommodation of the remaining 17 cases (4 males and 13 females) could not be ascertained for various reasons.

Sleeping accommodation of 278 Patients suffering from Tuberculosis of the Respiratory System and living in Private Houses :—

Rooms in Tenement (i.e., house or part of house occupied by one family)	Patients				Contacts		
	With Room to Self	With Bed but not Room to Self	With neither Bed nor Room to Self	Totals	Sleeping in same bed as Patient	Sleeping in separate Bed but in same room as Patient	Totals
1 room	8	—	4	12	4	—	4
2 rooms	8	3	21	32	24	15	39
3 rooms	14	1	14	29	15	4	19
4 rooms and over	99	21	85	205	92	44	136
Totals	129	25	124*	278	135	63	198

* Including 90 married persons.

It will be seen that 129, or 46·4 per cent., of the new cases had sleeping rooms to themselves, and that the number of persons exposed to infection by sleeping in the same bedrooms as patients was 198.

Known Cases of Tuberculosis.—The numbers of cases of tuberculosis remaining on the register at the end of 1935 were as follows :—

Tuberculosis of the Respiratory System :—

Males	....	....	631
Females	....	....	483
			<hr/>
Total	....	....	1,114

Other Forms of Tuberculosis :—

Males	....	....	242
Females	....	....	216
			<hr/>
Total	....	....	458
			<hr/>
Grand Total	....		1,572
			<hr/>

Of the foregoing cases, the numbers who were under observation by the tuberculosis nurses were as follows* :—

Tuberculosis of the Respiratory System :—

Males	....	....	524
Females	....	....	404
			<hr/>
Total	....	....	928

Other Forms of Tuberculosis :—

Males	....	....	199
Females	....	....	188
			<hr/>
Total	....	....	387
			<hr/>
Grand Total	....		1,315
			<hr/>

In addition to the cases referred to above, 205 unnotified cases of suspected tuberculosis (113 males and 92 females) were under observation by the nurses at the end of the year.

The number of known cases of tuberculosis (1,572) shows an increase of 28 compared with the number at the end of 1934.

During 1935 the tuberculosis nurses made 432 first visits and 2,454 revisits to the homes of patients.

* Cases regarded as not being under observation are those (1) permanently residing in institutions, (2) temporarily residing in institutions whose home addresses are unknown, (3) who by special request are not visited and (4) who have been "lost sight of."

Deaths.—The numbers of deaths from tuberculosis of the respiratory system and from other forms of tuberculosis during 1935 were 216 and 49, the death-rates per 1,000 being 0·97 and 0·22, respectively. The tuberculosis death-rates per 1,000 in each of the ten years 1926-1935 were as follows :—

Year	Tuberculosis of the Respiratory System	Other Forms of Tuberculosis	All Forms of Tuberculosis
1926	1·09	0·19	1·28
1927	1·26	0·28	1·54
1928	1·01	0·20	1·21
1929	1·14	0·20	1·34
1930	0·94	0·21	1·15
1931	1·06	0·23	1·29
1932	1·05	0·21	1·26
1933	1·05	0·21	1·26
1934	0·93	0·22	1·15
1935	0·97	0·22	1·19

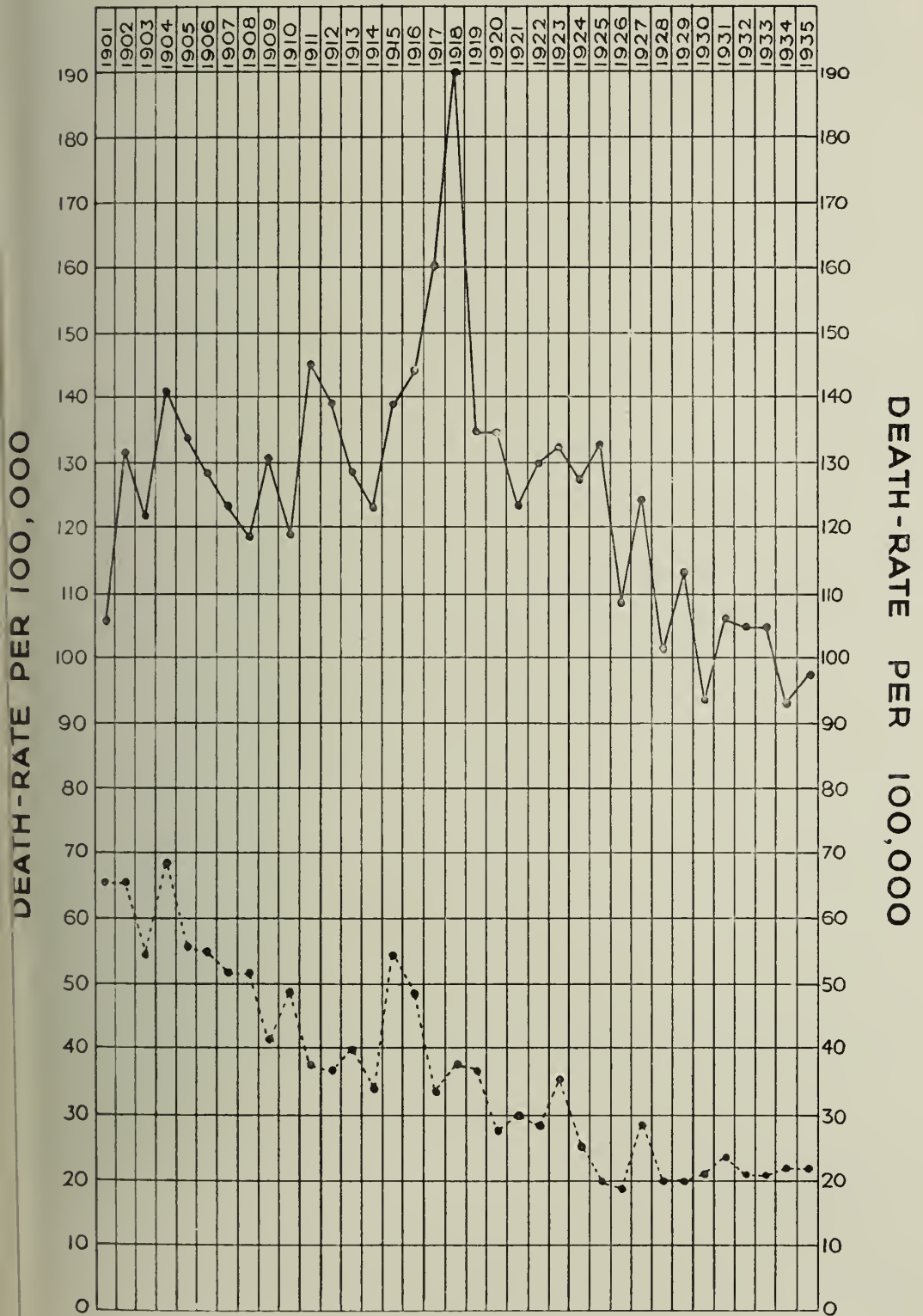
The increase in the death-rate from tuberculosis in 1935, as compared with that for 1934, is negligible (only 0·04 per 1,000) and is probably due merely to chance.

In the following table the numbers of deaths and death-rates from tuberculosis for each municipal ward and registration sub-district are given :—

Localities	Tuberculosis of the Respiratory System		Other Forms of Tuberculosis		All Forms of Tuberculosis		Average death-rate per 1,000 from All Forms of Tuberculosis, 1923-1934
	Deaths	Death-rate per 1,000	Deaths	Death-rate per 1,000	Deaths	Death-rate per 1,000	
Adamsdown	38	2·36	8	0·49	46	2·85	3·49
Cathays	15	0·94	6	0·38	21	1·32	1·13
Gabalfa	15	0·76	5	0·25	20	1·01	0·98
Central	11	0·89	1	0·08	12	0·97	1·77
South	22	1·61	5	0·36	27	1·97	1·64
Central Registration Sub-District	101	1·30	25	0·32	126	1·62	1·80
Plasnewydd	13	0·91	2	0·14	15	1·05	1·09
Penylan	5	0·33	1	0·07	6	0·40	0·95
Roath	8	0·52	5	0·33	13	0·85	1·09
Splott	21	0·98	7	0·33	28	1·31	1·26
East Registration Sub-District	47	0·71	15	0·23	62	0·94	1·10
Llandaff	21	0·69	3	0·10	24	0·79	1·01
Canton	14	0·87	1	0·06	15	0·93	1·10
Grangetown	12	0·82	3	0·20	15	1·02	1·42
Riverside	18	1·07	2	0·12	20	1·19	1·34
West Registration Sub-District	65	0·83	9	0·12	74	0·95	1·22
Institutions (Place of residence unknown)	3	—	—	—	3	—	—
Whole City	216	0·97	49	0·22	265	1·19	1·40

TUBERCULOSIS DEATH-RATE, CARDIFF, 1901-1935

RESPIRATORY ——— OTHER FORMS - - - - -



It will be observed that, as usual, the highest death-rates occurred in Adamsdown, where the majority of the foreign and maritime population reside. The effect of the high mortality from tuberculosis among the foreign and seafaring population upon the relatively high death-rate from tuberculosis was dealt with fully in the report for 1934.

The two following tables show the age distribution and localisation of the disease among the deaths from tuberculosis during 1935.

Deaths from Tuberculosis by Age and Sex :—

Age Periods—Years	Deaths					
	Tuberculosis of the Respiratory System			Other Forms of Tuberculosis		
	Males	Females	Totals	Males	Females	Totals
0—1	1	—	1	2	3	5
1—5	—	1	1	5	7	12
5—10	1	—	1	1	2	3
10—15	1	3	4	4	3	7
15—20	10	11	21	—	4	4
20—25	15	19	34	1	1	2
25—35	26	17	43	2	5	7
35—45	30	19	49	4	2	6
45—55	23	6	29	1	—	1
55—65	19	6	25	—	2	2
65 and upwards	4	4	8	—	—	—
Totals	130	86	216	20	29	49

Deaths from Tuberculosis by Sex and Localisation of Disease :—

Form of Tuberculosis	Deaths		
	Males	Females	Totals
Respiratory System	130	86	216
Central Nervous System	6	19	25
Intestines and Peritoneum	2	2	4
Vertebral Column	3	1	4
Other Bones and Joints	1	—	1
Disseminated Tuberculosis	7	5	12
Other Forms	1	2	3
Totals	150	115	265

The number and proportion of cases that died in 1935 that were previously unknown to the department will be seen from the following figures :—

	Total Number of Deaths	Deaths of Cases previously unknown	
		Number	Percentage
Tuberculosis of the Respiratory System	216	14	6·5
Other Forms of Tuberculosis	49	26	53·0
Totals	265	40	15·1

Treatment.—The following tables give particulars of the examination and treatment of Cardiff cases under the scheme of the Welsh National Memorial Association during 1935.

1.—WORK OF THE DISPENSARY.

	Tuberculosis of the Respiratory System				Other Forms of Tuberculosis				Totals			
	Adults		Children		Adults		Children		Adults		Children	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
A. New cases examined during the year (excluding contacts) :—												
(a) Definitely tuberculous	114	99	5	10	14	15	20	18	128	114	25	28
(b) Diagnosis not completed	—	—	—	—	—	—	—	—	14	14	11	12
(c) Non-tuberculous	—	—	—	—	—	—	—	—	145	179	84	66
B. Contacts examined during the year :—												
(a) Definitely tuberculous	1	—	—	1	—	—	—	—	1	—	—	1
(b) Diagnosis not completed	—	—	—	—	—	—	—	—	1	4	1	2
(c) Non-tuberculous	—	—	—	—	—	—	—	—	23	41	25	22
C. Cases written off the Dispensary Register as :—												
(a) Recovered	11	12	4	—	3	4	16	10	14	16	20	10
(b) Non-tuberculous (including cases previously diagnosed and entered on the Dispensary Register as tuberculous)	—	—	—	—	—	—	—	—	170	220	111	93
D. Number of cases on Dispensary Register on December 31st :—												
(a) Definitely tuberculous	389	259	23	32	67	75	81	76	456	334	104	108
(b) Diagnosis not completed	—	—	—	—	—	—	—	—	15	18	16	22

1. Number of cases on Dispensary Register on January 1st	1,062
2. Number of cases transferred from other areas and cases returned after discharge under head 3 in previous years	18
3. Number of cases transferred to other areas, cases not desiring further assistance under the scheme, and cases "lost sight of"	121
4. Cases written off during the year as dead (all causes)	173
5. Number of attendances at the Dispensary (including contacts)	6,963
6. Number of Insured Persons under Domiciliary Treatment on December 31st	8
7. Number of consultations with medical practitioners :—	
(a) Personal	213
(b) Other	1,506
8. Number of visits by Tuberculosis Officers to homes (including personal consultations)	222
9. Number of visits by Nurses or Health Visitors to homes for Dispensary purposes	2,063
10. Number of :—	
(a) Specimens of sputum examined in connection with Dispensary work	486
(b) X-Ray examinations made in connection with Dispensary work	1,731
11. Number of "Recovered" cases restored to Dispensary Register and included in A (a) and A (b) above	3
12. Number of "T.B. plus" cases on Dispensary Register on December 31st	483

2.—RESIDENTIAL TREATMENT.

		In Institutions on Jan. 1st	Admitted during the year	Discharged during the year	Died in Institutions	In Institutions on Dec. 31st
Number of doubtfully tuberculous cases admitted for observation	Adult males	—	3	3	—	—
	Adult females	—	7	7	—	—
	Children	7	11	15	—	3
	Totals	7	21	25	—	3
Number of patients suffering from Tuberculosis of the Respira- tory System	Adult males	87	152	129	38	72
	Adult females	60	129	127	19	43
	Children	8	12	14	1	5
	Totals	155	293	270	58	120
Number of patients suffering from Other Forms of Tuberculosis	Adult males	8	14	16	—	6
	Adult females	2	7	5	—	4
	Children	18	30	24	3	21
	Totals	28	51	45	3	31
Grand Totals		190	365	340	61	154

3.—RESULTS OF OBSERVATION OF DOUBTFULLY TUBERCULOUS CASES DISCHARGED FROM RESIDENTIAL INSTITUTIONS.

(a) Sanatorium and Hospital (Pulmonary Cases).

Diagnosis on discharge from Observation	Stay under 4 weeks			Stay over 4 weeks			Totals		
	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.
Tuberculous	—	1	3	—	2	—	—	3	3
Non-tuberculous	1	1	—	—	—	1	1	1	1
Doubtful	—	—	2	1	—	8	1	—	10
Totals	1	2	5	1	2	9	2	4	14

(b) Hospital (Non-Pulmonary Cases).

Diagnosis on discharge from Observation	Stay under 4 weeks			Stay over 4 weeks			Totals		
	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.
Tuberculous	—	—	1	—	—	—	—	—	1
Non-tuberculous	—	—	—	—	3	—	—	3	—
Doubtful	1	—	—	—	—	—	1	—	—
Totals	1	—	1	—	3	—	1	3	1

4.—IMMEDIATE RESULTS OF TREATMENT OF DEFINITELY TUBERCULOUS PATIENTS
DISCHARGED FROM RESIDENTIAL INSTITUTIONS.

(a) Sanatorium (Pulmonary Cases).

Condition at time of Discharge	Duration of Residential Treatment												Totals
	Under 3 months			3-6 months			6-12 months			More than 12 months			
	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	
Quiescent	—	—	1	3	13	1	1	2	1	—	—	1	23
Not Quiescent	3	3	—	11	29	1	20	8	2	7	—	—	84
Died	—	—	—	—	—	—	—	—	—	2	—	—	2
Totals	3	3	1	14	42	2	21	10	3	9	—	1	109

(b) Hospital (Pulmonary Cases).

Condition at time of Discharge	Duration of Residential Treatment												Totals
	Under 3 months			3-6 months			6-12 months			More than 12 months			
	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	
Quiescent	1	—	—	1	—	1	—	—	—	1	—	—	4
Not Quiescent	28	26	3	21	24	1	12	11	1	3	2	—	132
Died	8	9	1	9	5	—	2	4	—	1	—	—	39
Totals	37	35	4	31	29	2	14	15	1	5	2	—	175

(c) Hospital (Non-Pulmonary Cases).

Condition at time of Discharge	Duration of Residential Treatment												Totals
	Under 3 months			3-6 months			6-12 months			More than 12 months			
	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	
Quiescent	—	—	—	—	—	1	—	—	2	1	1	2	7
Not Quiescent	6	—	12	2	—	3	3	2	1	2	—	1	32
Died	—	—	—	—	—	—	—	—	1	—	—	1	2
Totals	6	—	12	2	—	4	3	2	4	3	1	4	41

XIII.—VENEREAL DISEASES.

The following is a summary of the returns for 1935 from treatment centres established under the Public Health (Venereal Diseases) Regulations, 1916 :—

	Cardiff Royal Infirmary	Royal Hamadryad Seamen's Hospital*	Auxiliary Centre for Mothers and Children	Institutions outside Cardiff	Totals
A. Number of <i>persons residing in Cardiff</i> dealt with during the year for the first time and found to be suffering from :—					
Syphilis	131	186	29	1	347
Soft Chancre	1	80	—	—	81
Gonorrhoea	280	295	75	4	654
Conditions other than Venereal ..	93	28	90	1	212
Totals	505	589	194	6	1,294
B. Number of attendances of all patients residing in Cardiff	13,580	9,674	3,442	18	26,714
C. Aggregate number of "in-patient days" of all patients residing in Cardiff	—	2,261	—	43	2,304
D. Number of doses of arsenobenzene compounds given to patients residing in Cardiff	1,254	617	671	5	2,547

Examination during 1935 of pathological material from *patients residing in Cardiff* and patients at institutions in or belonging to Cardiff :—

	Microscopical		Serum Tests		
	Spirochetes	Gono-cocci	Wassermann	Others for Syphilis	For Gonorrhoea
Specimens examined at Treatment Centres :—					
Cardiff Royal Infirmary	—	357	539	—	—
Royal Hamadryad Seamen's Hospital*	25	89	—	—	—
Specimens examined at the Cardiff and County Public Health Laboratory from :—					
Treatment Centres :—					
Royal Hamadryad Seamen's Hospital*	—	—	199	—	—
Auxiliary Centre for Mothers and Children	1	233	102	—	1
Public Health Department	—	2	1,265	—	—
Other sources	3	184	1,560	—	29
	4	419	3,126	—	30
Totals	29	865	3,665	—	30

During the year, 657 doses of arsenobenzene compounds were supplied in 57 instances to 21 individual private medical practitioners.

*The figures relate to seamen only, whether residents of Cardiff or not.

The following table shows the numbers of *all persons* dealt with for the first time at the Cardiff treatment centres during each of the years 1926-1935* :—

Year	Syphilis		Soft Chancres		Gonorrhoea		Conditions other than Venereal		Totals		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Both Sexes
1926	359	126	102	3	578	130	271	84	1,310	343	1,653
1927	446	153	95	3	659	138	275	97	1,475	391	1,866
1928	397	162	89	4	728	178	247	142	1,461	486	1,947
1929	407	130	102	4	697	178	212	163	1,418	475	1,893
1930	388	118	108	—	730	161	187	153	1,413	432	1,845
1931	360	136	91	—	510	157	179	141	1,140	434	1,574
1932	327	114	104	—	585	146	163	135	1,179	395	1,574
1933	378	88	92	—	577	140	175	125	1,222	343	1,565
1934	291	94	93	—	656	131	154	115	1,194	340	1,534
1935	323	88	87	—	609	136	136	96	1,155	320	1,475

The following table gives the results of treatment and other particulars regarding *all persons* dealt with at the Cardiff treatment centres during 1935 :—

	Syphilis		Soft Chancres		Gonor- rhoea		Conditions other than Venereal		Totals		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Both Sexes
Number of cases under treatment or observation on 1st January	204	291	13	—	234	123	6	18	457	432	889
Number of cases dealt with for the first time*	323	88	87	—	609	136	136	96	1,155	320	1,475
Number of cases discharged after completion of treatment and final tests of cure	97	28	52	—	219	61	134	95	502	184	686
Number of cases which ceased to attend before completion of treatment	99	30	12	—	211	40	—	—	322	70	392
Number of cases which ceased to attend after completion of treatment but before final test of cure	59	7	2	—	100	2	—	—	161	9	170
Number of cases transferred to other centres or to institutions, or to care of private practitioners	66	8	24	—	98	15	—	—	188	23	211
Number of cases remaining under treatment or observation on 31st December	206	306	10	—	215	141	8	19	439	466	90

* Including cases that returned after being removed from the registers and cases transferred from other centres.

XIV.—MATERNITY AND CHILD WELFARE.

Notification of Births and Still-births.—The following statement shows the numbers of births and still-births notified as having occurred in Cardiff during 1935 :—

	<i>Births.</i>	<i>Still-births.</i>
By Medical Practitioners	23	2
By Midwives	2,343	100
By Queen's Institute of District Nursing	451	28
By Parents	3	—
From Cardiff Royal Infirmary ...	569	88
From City Lodge Hospital	243	27
Totals	3,632*	245†

Child Welfare Centres.—The following is a record of the attendances at the 10 child welfare centres :—

Number of Sessions	ATTENDANCES					Average Attendance at each Session
	Children under 1 year		Children 1 year to 5 years		Total	
	First	Subsequent	First	Subsequent		
700	2,076	22,271	334	9,233	33,914	48

The total number of children who attended at the centres during the year was as follows :—

Children under 1 year at end of year	2,734
Children between 1 year and 5 years at end of year	2,744
Total	5,478

The following tabular statement shows the conditions found by medical officers in 2,052 infants under one year and 332 children between one and five years who were examined for the first time during 1935 and also the diseases or defects discovered subsequent to first examination :—

* Including 296 not belonging to Cardiff.
 † „ 62 „ „ „ „

	Examined for first time		Diseases or Defects found in Children subsequent to their first examination	
	Under 1 year	1 year and over	Under 1 year	1 year and over
Number examined :—				
Normal	1,358	92	—	—
Individual cases found with Diseases or Defects ..	694	240	—	—
Diseases or Defects found :—				
Injury at Birth	6	1*	1	—
Congenital Malformation or Defect	75	3	14	1
Prematurity	53	—	4	—
Congenital Debility	17	—	15	—
Malnutrition (cause not specified) or Debility (not congenital)	51	16	95	83
Anaemia (cause not specified)	19	16	48	55
Diseases or Defects of :—				
Skin (Non-syphilitic) :				
Systemic	54	9	258	109
Contagious	10	15	78	107
Irritative	53	11	215	77
Eye : Ophthalmia Neonatorum	23	2	28	5
Squint	4	7	5	35
Other	29	7	80	71
Ear : Otorrhoea	5	3	73	67
Other	—	—	19	25
Nose and Throat :				
Enlarged Tonsils and/or Adenoids ..	1	19	12	85
Other	23	6	77	73
Heart and Circulation : Congenital	1	2	2	4
Rheumatic	—	—	—	3
Other	—	—	6	6
Respiratory System (non-tuberculous)	49	18	43	207
Digestive System : Hernia—Umbilical	73	—	50	13
Other	21	2	25	13
Other Diseases	134	22	1,084	416
Nervous System : Chorea	1	—	7	4
Other	3	1	20	52
Genito-urinary System : Phimosis	83	7	54	25
Other	9	5	25	37
Tuberculosis : Pulmonary—				
Definite	1	—	1	—
Suspected	1	1	1	7
Non-Pulmonary	—	1	1	7
Defective Teeth	1	68	19	315
Rickets	6	12	27	46
Other Deformities	15	7	28	62
Rheumatism (not Cardiac or Nervous) ..	—	—	—	5
Syphilis	2	—	—	—
Other Diseases or Defects	25	11	42	112

Ante-natal and Post-natal Clinics.—The record of attendances at the five ante-natal clinics is given in the following statement :—

Number of Sessions	ATTENDANCES					Average Attendance at each Session
	Expectant Mothers		Post-natal Cases		Total	
	First	Subsequent	First	Subsequent		
374	1,627	5,331	82	23	7,063	19

In the following table the number of notified births (live and still) belonging to Cardiff and the number of expectant mothers who attended the ante-natal clinics for the first time during each of the years 1932 to 1934 are given :—

	1932	1933	1934	1935
(a) Total number of notified births (live and still)	3,754	3,576	3,632	3,519
(b) Number of expectant mothers who attended the ante-natal clinics	1,466	1,418	1,669	1,627
(c) Percentage of notified births represented by (b)	39·0	39·6	45·9	46·2

An analysis regarding 1,519 expectant mothers who attended the ante-natal clinics for the first time during 1935 and who were confined during 1935 is given below.

Miscarriages occurred in 23 instances and still-births in 24. Four of the women died from puerperal causes. Twin births occurred in 10 instances.

Type of case :—

Primipara	....	....	....	....	508
Multipara	....	....	....	....	1,011
Total	....	....	....	....	1,519

Of these 1,519 women, 756 were found to be suffering from 1,043 diseases, abnormalities or defects, as follows :—

Abnormalities of the thyroid gland	....	....	8
Albuminuria	....	....	87
Anaemia	....	....	39
Conditions requiring caesarean section	....	....	1
" " version	....	....	39
Contracted pelvis	....	....	54
Debility	....	....	6
Dental defects requiring treatment	....	....	369
Foetal abnormality	....	....	2
Haemorrhage	....	....	40
Haemorrhoids	....	....	8
Heart conditions	....	....	18
Hydrometra	....	....	9
Malnutrition	....	....	3
Oedema	....	....	71
Phlebitis	....	....	5
Pyelitis	....	....	11
Respiratory diseases	....	....	15
Skin diseases	....	....	13
Vaginal discharge	....	....	147
Varicose veins	....	....	74
Vomiting	....	....	18
Other diseases	....	....	6
Total	...	....	1,043

Place of confinement :—

Private dwelling-houses	....	....	....	701
Maternity Hospital (Cardiff Royal Infirmary)	....	....	....	503
City Lodge Hospital	....	....	....	185
Private Maternity Homes	....	....	....	24
Outside Cardiff	....	....	....	65
Not traced	....	....	....	41
Total	....	....	....	1,519

Since June, 1925, pregnant women attending the ante-natal clinics have been subjected to a blood test for syphilis, namely, the Wassermann reaction. During 1935 the number of tests made was 1,253, of which 23, or 1·8 per cent., were found to be positive. From June, 1925, to the end of 1934 the number of tests made was 7,935, of which 176, or 2·2 per cent., were positive. During the first three-and-a-half years, i.e., from June, 1925, to the end of 1928, the percentage found positive was 3·1. There has therefore been a definite decline in the number of expectant mothers found to be suffering from syphilis. Expectant mothers found to be suffering from syphilis are referred for treatment to the special treatment centre for mothers and children, which is conducted in close co-operation with the maternity and child welfare section of the department.

The following is a record of attendances at the special post-natal clinic :—

Number of Sessions	ATTENDANCES			Average Attendance at each Session
	First	Subsequent	Total	
47	295	74	369	8

An analysis of 313 post-natal cases dealt with (including cases dealt with at ante-natal clinics) is given below.

Type of case :—

Primipara	....	....	....	....	158
Multipara	....	....	....	....	155
Total	....	....	....	....	313

Pregnancy :—

Normal	....	....	....	....	270
Abnormal	....	....	....	....	43
Total	....	....	....	....	313

Labour :—

Normal	....	....	....	....	240
Abnormal	....	....	....	....	26
Forceps delivery	....	....	....	....	47
Total	....	....	....	....	313

Of these 313 cases, 168 were found to be suffering from 214 diseases, abnormalities or defects, as follows :—

Albuminuria	....	....	....	....	3
Anaemia or malnutrition	....	....	....	....	28
Constipation—severe	....	....	....	....	2
Laceration of cervix or perineum	....	....	....	....	13
Oedema	....	....	....	....	1
Phlebitis	....	....	....	....	1
Prolapse	....	....	....	....	19
Retroversion	....	....	....	....	38
Sub-involution	....	....	....	....	5
Vaginal discharge and erosion	....	....	....	....	98
Other diseases	....	....	....	....	6
Total					214

Maternity Hospitals.—The number of expectant mothers admitted to the Maternity Hospital (Cardiff Royal Infirmary) was as follows :—

Complicated cases sent by General Practitioners	....	38
Cases admitted through Ante-natal Clinics	....	431
Total		469

Since 1st January, 1934, expectant mothers have also been admitted through ante-natal clinics to the City Lodge Hospital for confinement, the Health Committee being responsible for the net cost of their maintenance. The number of cases admitted to the institution under these arrangements during the year was 151. On 3rd July, 1935, a clinic was established at the hospital for the examination of the patients prior to admission.

Maternity and Nursing Homes.—At 31st December, 1935, there were 18 registered nursing homes, 10 providing for maternity cases only, 4 providing for surgical and/or medical cases only and 4 providing for both maternity and other cases. The total number of beds in these nursing homes was 130, of which 66 were available for maternity cases.

Extra-Domiciliary Confinement.—The number and proportion of births and still-births belonging to Cardiff and registered in Cardiff as having occurred away from private dwelling-houses during 1935 are given below :—

Place of Birth	Number	Number per 1,000 Total Births
Cardiff Royal Infirmary	473	133
City Lodge Hospital	227	64
Private Nursing and/or Maternity Homes	272	76
Totals	972	273

Dental Clinics.—The following is a record of the work carried out at the dental clinics in connection with maternity and child welfare :—

	Mothers	Children	Totals
Inspected	354	377	731
Treated	330	359	689
Attendances :—			
For inspection	424	379	803
For treatment	1,642	431	2,073
Teeth extracted	3,687	1,280	4,967
Teeth filled	29	12	41
Dressings	23	1	24
Salings	36	—	36
Anaesthetics administered :—			
General	584	389	973
Local	105	—	105
Supplied with dentures	174	—	174
Dentures supplied :—			
Full upper	161	—	161
Partial upper	10	—	10
Full lower	142	—	142
Partial lower	10	—	10

Domiciliary Visits by Health Visitors.—The following is a summary of the visits made by the health visitors :—

Births—First visits	....	....	....	....	3,072
Births and infant deaths—Combined visits	....	....	....	....	52
Infant death investigations	....	....	....	....	97
Still-birth investigations	....	....	....	....	146
Subsequent visits	....	....	{	Infants under one year	6,439
			{	Children over one year	8,954
Ante-natal cases	....	....	{	First visits	112
			{	Re-visits	56
Infectious Diseases :—					
Ophthalmia neonatorum	....	{	First visits	....	44
		{	Re-visits	....	46
Puerperal fever	....	{	First visits	....	18
		{	Re-visits	....	—
Measles	....	{	First visits	....	1,359
		{	Re-visits	....	34
Whooping cough	....	{	First visits	....	149
		{	Re-visits	....	3
Mumps	....	{	First visits	....	78
		{	Re-visits	....	1
Financial inquiries	....	....	....	....	899
Other visits	....	....	....	....	5,204
Total	....	....	....	....	26,763

Milk for Mothers and Infants.—Milk was supplied free of charge in necessitous cases and on medical certificates to the following extent :—

	Fresh Milk— Grade A (T.T.)		Dried Milk	
	Applications for a month's supply	Pints granted	Applications for a month's supply	Pounds granted
Infants	1,074	33,267	959	5,809
Expectant Mothers	341	10,373	—	—
Nursing Mothers	1,090	33,003	—	—
Totals	2,505	76,643	959	5,809

Midwives Practising in Cardiff.—The number of midwives who gave notice of intention to practise in Cardiff during the year was 118. They are classified as follows :—

According to qualifications :—

<i>Bona fide</i>	6
Certificate of Central Midwives Board	112
Total	118

According to type of practice :—

Attached to public institutions	37
Attached to private nursing or maternity homes	12
Dealing with less than five cases per annum	14
Monthly nurses	5
Others	50
Total	118

Officers of the department made 115 visits of inspection of midwives, and midwives' appliances, etc., were disinfected in 16 instances.

The following is a record of the practice of midwives in Cardiff during the year in relation to the births which were the subject of visits by the health visitors :—

Attendances at births by midwives* as ascertained by health visitors :—

(a) Alone	1,447
(b) With a medical practitioner :—	
(i) Medical practitioner engaged	496
(ii) Medical practitioner called in emergency	663

Attendances at still-births by midwives* :—

(a) Alone	30
(b) With a medical practitioner :—	
(i) Medical practitioner engaged	33
(ii) Medical practitioner called in emergency	49

*Other than those engaged in midwifery at the Cardiff Royal Infirmary and the City Lodge Hospital

Medical Practitioners called in by Midwives in Emergency.—During the year the number of instances in which medical practitioners were called in by midwives in emergency was 1,183, and claims for emergency fees were made by practitioners in 986 cases. The fees claimed totalled £1,505 6s. 6d., and in 195 instances fees amounting to £254 2s. 0d., were reclaimed from the responsible persons. The sum actually recovered during the year was £168 1s. 9d.

The following statement gives the reasons for medical help being summoned by midwives :—

(1) MOTHER :—

(a) *Pregnancy*—

Miscarriage (including abortion)	....	....	96
Haemorrhage	....	....	18
Albuminuria and oedema and other toxic causes			41
Other causes	....	....	37
			— 192

(b) *Labour*—

Abnormal presentation	....	....	54
Premature labour	....	....	27
Obstructed and delayed labour	....	....	382
Placenta praevia, ante-partum haemorrhage and eclampsia, and other toxic causes		....	50
Post-partum haemorrhage and retained and adherent placenta	....	....	52
Ruptured perineum	....	....	157
Other causes	....	....	19
			— 741

(c) *Lying-in*—

Pyrexia, secondary post-partum haemorrhage and phlegmasia and other septic causes	....	62
Other causes	....	42
		— 104

(2) INFANT—

Debility	....	....	45
Inflammation of or discharge from eyes	48
Other causes	53
			— 146

Total	1,183
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Puerperal Fever and Puerperal Pyrexia.—Statistics as to the number of cases of puerperal fever and puerperal pyrexia notified during the year are given in the section dealing with notifiable diseases (page 17), but as the work involved comes within the province of maternity and child welfare it is referred to here. Sixty-one cases of puerperal fever and 44 cases of puerperal pyrexia were notified. General practitioners sought the assistance of the department in several cases, and one specialist consultation took place.

Home Nursing.—The following is a record of the work done by the Queen's Institute of District Nursing for the maternity and child welfare section of the department :—

Disease or Defect	Cases carried over from 1934		Cases referred for Treatment during 1935		Totals	
	Cases	Visits	Cases	Visits	Cases	Visits
Skin :—Impetigo	4	31	24	412	28	443
Other Skin Diseases	—	—	16	256	16	256
Eye :—Ophthalmia and Ophthalmia Neonatorum	1	29	31	748	32	777
Other Eye Defects	—	—	114	1,153	114	1,153
Minor Ear Defects	1	29	21	359	22	388
Miscellaneous	5	30	130	1,407	135	1,437
Totals	11	119	336	4,335	347	4,454

Maternity Bags.—Maternity bags were lent by the department in eight necessitous cases.

Home Helps.—Home helps were provided by the department in 169 cases in which mothers confined at home were without adequate domestic help and without means of obtaining it.

The scheme for the provision of home helps is as follows :—

1. Application has to be made by the expectant mother at an ante-natal clinic on a form containing provision for the financial circumstances of the family which has to be signed by the husband.

2. On receipt of the application, a letter and form are sent to the applicant. The letter states the sum, if any, that has to be paid towards the cost of the home help and the form, which has to be signed and returned, is an agreement to pay the sum mentioned in the letter. The sum that has to be paid varies according to a scale of family income, up to a maximum of 12/6d. per week, but in necessitous cases no charge is made.

3. A note of the probable date of confinement is then made and the expectant mother is informed that a home help will be provided.

4. Two weeks or so before the confinement, a home help is instructed by letter to call upon the expectant mother to make arrangements for taking up duty.

5. When a home help has commenced duty, she sends notice of the fact in writing to the department, so that arrangements may be made for the payment of her wages.

6. Usually the services of a home help are provided for two weeks.

7. The home helps are selected from a panel and they are paid at the rate of 5/- per day when working, no retaining fee being paid. Home helps are required to provide their own meals.

8. The duties are as follows :—

(a) To scrub and clean when required.

(b) To wash and bath children.

(c) To wash and mend clothing.

(d) To cook and serve meals.

(e) To undertake the careful marketing for the family.

(f) To assist in the care of aged and infirm persons.

(g) Generally to act under the direction of the Supervising Officer.

9. The hours of duty of home helps are usually from 7.30 a.m. to 7.0 p.m., so that they may dress the young children, get their breakfast and see them off to school, while they are not allowed to leave until the children are again in bed.

Crippling Defects and Orthopaedics.—The following is a summary of the work carried out at the orthopaedic clinic during 1935 :—

<i>Consultation Clinic :—</i>	<i>Children under School Age.</i>
Examined for first time	124
Recommended for treatment and/or appliances for first time	81
Recommended for further treatment and/or appliances	83

Recommendations for :—

Treatment in Hospital	10
Treatment at Clinic (Special and Routine)	85
Appliances	41
Alterations to appliances.	—
Special boots	—
Alterations to boots	50
Other forms of treatment	1
Treated at Clinic for first time	45
Attendances at Clinic	429

Routine Treatment (massage, electricity, exercises, etc.) :—

Treated at Clinic for first time	69
Attendances for routine treatment	1,426

The following statement relates to treatment at and provision of appliances, etc., through the Prince of Wales' Hospital, Cardiff, during 1935 :—

<i>Hospital Treatment :—</i>	<i>Children under School Age.</i>
Admitted to Prince of Wales' Hospital :—	
(a) Day cases	2
(b) Other cases	5
Under treatment at Prince of Wales' Hospital at end of 1935	3
On Prince of Wales' Hospital waiting list at end of 1935 :—	
(a) Day cases	—
(b) Other cases	2

*Other treatment or provision (including appliances, etc., provided
following hospital treatment) :—*

Appliances provided	24
Appliances altered	8
Special boots provided	1
Alterations to boots	54
Other forms of treatment provided	15

The diseases or defects found in children examined for the first time during the year have been classified as follows :—

<i>Diseases or Defects.</i>	<i>Number.</i>
Flat feet	3
Bow legs	27
Talipes	19
Rickets	7
Birth palsy	2
Spastic paralysis	2
Congenital malformation or deformity	4
Congenital dislocation of hip	1
Torticollis	12
Knock knee	19
Metatarsus varus and intoeing	10
Coxa vara	3
Tuberculous disease	2
Other defects	13
Total	124

The following is a classification of the cases discharged during the year :—

<i>Reason.</i>	<i>Number.</i>
Cured	52
Improved	9
Unlikely to benefit further	1
Left the district	6
Failed to attend for treatment	27
Other reasons (including trivial defects)	18
Total	113

Nose and Throat Defects.—The following is a summary of the work done in connection with the treatment of children under school age suffering from enlarged tonsils and/or adenoids :—

Examined at Clinic for first time	115
Received operative treatment at Llandough Hospital	9
Received other forms of treatment at Clinic	34
Total attendances at Clinic	239

Visual Defects.—The following statement summarises the work done in connection with the examination of visual defects in children under school age :—

Attended Clinic for first time	71
Examined for errors of refraction	56
For whom spectacles were prescribed	54

For whom spectacles were provided :—

(a) By parents	35
(b) By Council free of charge	20

Treatment for other eye defects prescribed and provided	11
Total attendances at Clinic	195

Measles.—The hospital treatment of cases of measles under five years of age is undertaken as part of the maternity and child welfare scheme of the Council. Particulars as to the cases admitted to hospital during 1935 are contained in the report on the Isolation Hospital (page 24).

Venereal Diseases.—Tabular statements relating to the work of the special treatment centre for mothers and children are included in the section dealing with venereal diseases (page 70).

Radiography.—The number of individual cases referred from the maternity and child welfare centres for radiography was 123, the total number of radiograms taken being 136. The parts of the body that required X-ray examination in the 123 cases were as follows :—

Arm	....	....	....	....	2
Wrist	....	....	....	....	106
Hand	....	....	....	....	4
Hip	....	....	....	....	6
Knee	....	....	....	....	2
Leg	....	....	....	....	2
Foot	....	....	....	....	5
Skull	....	....	....	....	2
Spine	....	....	....	....	1
Total	....	....	....	....	130

Artificial Sunlight Treatment.—The number of children under five years of age treated by artificial sunlight for the first time and their ailments are shown in the following table :—

<i>Diseases.</i>	<i>Children.</i>
Anaemia	1
Debility	5
Nervous debility and/or malnutrition	7
Bronchial catarrh	1
Rickets	25
Total	39

The total number of attendances of children for treatment was 533. Thirty-one expectant mothers also received treatment for the first time, the total number of attendances being 207.

Infant Life Protection.—The following statement gives particulars of the numbers of persons and children registered at the end of 1935 and visits by the visitor specially engaged in this work during the year :—

Persons on the register who were receiving children for reward at the end of the year	72
Children on the register :—	
(a) At the end of the year	77
(b) Who died during the year	—
First visits	12
Routine visits	650
Special visits :—	
(a) Illegitimate infants	5
(b) Others	179

Adoption of Children Act, 1926.—The visitor specially engaged in duties in connection with infant life protection dealt with 22 cases during the year in which the Council acted as guardian *ad litem*.

XV.—LABORATORY WORK.

Cardiff and County Public Health Laboratory.—The numbers of specimens and samples examined during 1935 for Cardiff were as follows :—

Bacteriological Examinations :—

Water supplies	243
Milks for Tubercle Bacilli	387
Milks for General Examination	1,058
Ice Creams for General Examination	96
Sputa for Tubercle Bacilli	880
Urine for Tubercle Bacilli	27
Rodents for Plague	438

Specimens for :—

Diphtheria	2,845
Enteric Fever (Serum)	78
Enteric Fever (Other Specimens)	50
Dysentery	394
Food Poisoning Organisms	311
Gonorrhoea	449
Syphilis (Wassermann Reaction)	3,126
Syphilis (Spirochaeta Pallida)	4
Ringworm	7
Cerebro-Spinal Fluids	34
Other Examinations	157

Chemical Examinations :—

Water Supplies	189
Milks and Milk Products	131
Ice Creams	85
Air of Cinemas	11
In connection with Atmospheric Pollution	41
In connection with Ultra-Violet Radiation	372
Other Examinations	20

Total	11,433
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The numbers of specimens examined for suspected disease in patients resident in Cardiff, together with the results, are shown below :—

Suspected Disease	Positive Results	Negative Results	Totals	Percentage of Positive Results
Diphtheria	241	2,604	2,845	8.4
Enteric Fever	32	96	128	25.0
Tuberculosis (Respiratory)	248	632	880	28.2
Gonorrhoea	78	371	449	17.4
Syphilis—				
Wassermann Reaction	358	2,768	3,126	11.4
Spirochaeta Pallida	1	3	4	25.0

XVI.—FOOD INSPECTION.

Meat Inspection at Municipal Abattoirs.—The following tables set out in detail the work done in connection with meat inspection during the year.

Animals slaughtered and whole carcasses found diseased which were surrendered and destroyed or otherwise dealt with by arrangement with the owners :—

	ROATH ABATTOIR		CANTON ABATTOIR		TOTALS	
	Slaughtered	Diseased or unsound and destroyed	Slaughtered	Diseased or unsound and destroyed	Slaughtered	Diseased or unsound and destroyed
Bulls	65	—	63	1	128	1
Cows	469	28	558	46	1,027	74
Heifers	2,868	12	799	2	3,667	14
Steers	1,672	3	736	3	2,408	6
Calves	9,248	16	1,140	19	10,388	35
Sheep and lambs	30,345	28	15,165	67	45,510	95
Pigs	23,678	113	7,433	76	31,111	189
Totals	68,345	200	25,894	214	94,239	414

Instances in which tuberculosis was found :—

	ROATH ABATTOIR		CANTON ABATTOIR		TOTALS	
	Number	Percentage	Number	Percentage	Number	Percentage
Cattle:—						
Bulls	10	15·38	25	39·68	35	27·34
Cows	187	39·87	308	55·19	495	48·20
Heifers	156	5·44	80	10·01	236	6·43
Steers	71	4·24	63	8·56	134	5·56
Calves	17	0·18	16	1·40	33	0·32
All Cattle	441	3·08	492	14·92	933	5·29
Pigs	444	1·87	305	4·10	749	2·41

Causes of destruction of carcasses :—

Cause	Beef	Veal	Mutton and Lamb	Pork	Totals
Tuberculosis	86	16	—	92	194
Dropsy	—	—	6	13	19
Emaciation	3	—	4	1	8
Dropsy and emaciation	—	—	66	1	67
Johne's disease	—	—	—	1	1
Moribund	—	—	5	—	5
Decomposition	—	—	—	—	—
Other causes	6	19	14	81	120
Totals	95	35	95	189	414

Approximate weight of diseased or unsound meat surrendered and destroyed or otherwise dealt with by arrangement with the owners :—

Carcases of—				Tons	cwt.	lb.
Beef	....	....	....	23	3	96
Veal	....	....	....	—	17	62
Mutton and lamb	....	....	....	1	9	96
Pork	....	....	....	7	12	46
Part carcases of—						
Beef	....	....	....	2	13	52
Veal	....	....	....	—	—	—
Mutton and lamb	....	....	....	—	—	105
Pork	....	....	....	1	11	48
Offal of—						
Beasts	....	....	....	20	11	31
Calves	....	....	....	—	4	107
Sheep and lambs	....	....	....	2	11	51
Pigs	....	....	....	5	8	36
Total				66	5	58

Meat Inspection at Private Slaughter-houses.—The numbers of animals slaughtered were as follows :—

Sheep and lambs	....	....	....	266
Pigs	....	....	....	4,475
Total				4,741

Tuberculosis was found in carcasses of pork in 301 instances, the proportion being 6·72 per cent. Thirty-two unsound carcasses of pork were destroyed, the cause in 30 instances being tuberculosis ; in the other two instances the causes were fever and peritonitis respectively.

The total weight of unsound meat surrendered at private slaughter-houses and destroyed by arrangement with the owners was 4 tons 0 cwt. 84 lb.

Unsound Food Exposed or Intended for Sale.—The following is a record of the work done by the sanitary inspectors in connection with inspection of food exposed or intended for sale during the year :—

	Number of Inspections.
Butchers' shops	3,587
Provision shops	234
Markets	297
Wholesale stores	1,821
Fish and fruit shops	493
Butter factories	83
Margarine stores (wholesale)	59
Ice cream premises and barrows	676
Fried fish shops	337
Food vehicles	113
Food stalls	188
Railway stations	16
Restaurants	368
Other premises	145
Total	8,417

Approximate weight of diseased or unsound food found in shops and stores and destroyed or disposed of by the owners otherwise than as food for human consumption :—

	Tons	cwt.	lb.
Beef	—	13	46
Mutton and lamb	5	12	61
Pork	—	12	24
Offal	1	2	26
Fish	3	9	2
Poultry	—	8	47
Rabbits	—	3	36
Ham and bacon	—	10	11
Other provisions	6	11	87
Fruit	1	10	55
Eggs	—	—	100
<hr/>			
Total	20	14	47

Meat Hawkers.—Eleven certificates for one year were granted under Section 108 of the Cardiff Corporation Act, 1930, to persons not keeping butchers' shops in the city, who desire to sell meat or meat products from vehicles, baskets or barrows, after the approval of the storage accommodation provided.

Cooked or Preserved Meat and Other Food.—Powers were obtained in 1930 prohibiting the establishment of made-up food premises without registration. These powers were extended by the Cardiff Corporation Act, 1934, and now the City Council have power to refuse to register, or to revoke existing registrations, if the applicants or their premises are not suitable. This has enabled the sanitary inspectors to keep in touch with all such businesses, and has resulted in a great improvement in the manner in which the premises have been maintained and the commodities produced. The number of premises on the register is 317, including 112 fried fish shops.

Milk Inspection.—For many years the Health Committee have adopted the policy of refusing to register shops for the sale of loose milk unless proper storage and cleansing facilities for the milk and utensils are provided in conjunction with the shop.

The following is a statement showing the method of milk distribution in Cardiff in June, 1935 :—

Character of Business	Number of Vendors		Totals
	Selling over 6 gallons per day	Selling under 6 gallons per day	
From dairy premises	153	18	171
From shops—loose and bottled milk	14	56	70
From shops—bottled milk only	—	407	407
Direct from farms in the City	17	1	18
Direct from farms or dairy premises outside the City	96	18	114
Totals	280	500	780

The approximate number of gallons of milk sold per day by all vendors in June, 1935, was 10,845, a decrease of 160 gallons compared with the quantity sold per day in June, 1934. Included in the total quantity sold per day in June, 1935, were 22 gallons of Certified milk, 554½ gallons of Grade A (T.T.) milk, 66½ gallons of Grade A milk and 1,235 gallons of Pasteurised milk. It is interesting to note that, in spite of the amount of milk being supplied to school children, there has been a slight decrease in the total daily consumption of milk in the city during 1934 and 1935.

Practically the whole of the milk consumed in Cardiff is produced beyond the boundaries of the city. The numbers of cowkeepers and cows in Cardiff are 26 and 416 respectively. One cowkeeper was licensed to produce Grade A (T.T.) milk and six were licensed to produce Grade A milk. All the cattle are regularly examined by the Veterinary Officer and the cowsheds are regularly inspected by sanitary inspectors.

The following is a record of the examination of cows by the Veterinary Officer :—

Month	Cowkeepers whose Premises were visited	Visits	Cows in Milk		Cows excluded from Dairy Herds	Cows not in Milk	
			Examined	Found diseased		Examined	Found diseased
January	27	31	311	7	—	59	1
February	29	33	362	9	1	46	—
March	26	31	352	5	—	37	—
April	19	24	233	4	1	39	—
May	27	32	384	5	—	41	—
June	28	31	378	7	—	51	—
July	14	14	249	5	—	38	—
September	26	30	407	11	7	55	—
October	25	32	377	5	3	65	—
November	27	31	406	6	3	82	—
December	26	29	387	4	3	73	—

Five cows affected with tuberculosis were slaughtered during 1935 in terms of the Tuberculosis Order, 1925.

The Veterinary Officer usually accompanies the officers of other local authorities when examining cows at farms situated outside Cardiff from which milk sold in Cardiff is found to contain tubercle bacilli. During 1935 he made 15 such visits and examined 223 cows in milk and 13 cows not in milk. Of the 223 cows in milk examined, 32 were found to be diseased, and 10 were excluded from dairy herds as the result of clinical examination.

Tubercle Bacilli in Milk.—The number of routine samples of milk examined for the presence of tubercle bacilli was 294, of which 16, or 5·4 per cent., were found to be positive. The percentage of samples in which tubercle bacilli were found during the ten years 1925-1934 was 4·2. The milk was produced outside Cardiff in 15 of the cases in which tubercle bacilli were found during 1935 and the action prescribed by section 4 of the Milk and Dairies (Consolidation) Act, 1915, was taken in each case.

Routine Bacteriological Examination of Milk.—The following is a record of the bacteriological examination of ordinary commercial milk carried out during 1935, the results being shown in such a way as to reveal the proportion which attained the standard prescribed by the Milk (Special Designations) Order, 1923, for Grade A milk :—

Period	Number of Samples examined	Number containing not more than 200,000 bacteria in 1 c.c.	Number with <i>B. Coli</i> absent in 1/100 c.c.	Number attaining Grade A standard by both tests	Percentage attaining Grade A standard
January—May ..	139	131	124	119	86
June—August ..	79	53	47	42	53
September—December ..	96	92	82	81	84
Totals ...	314	276	253	242	77

Graded Milks.—The following is a statement of the numbers of licences for the various grades of milk and the number of individual dealers under the Milk (Special Designations) Order, 1923, as at 31st December, 1935 :—

Description	Number
(1) Producers' licences to use the designation "Grade A"	6
(2) Dealers' licences to use the designation "Certified"	3
(3) Dealers' licences to use the designation "Grade A (Tuberculin Tested)"—	
(a) Bottling establishments.....	26
(b) Shops	35
(c) Supplementary	7
(4) Dealers' licences to use the designation "Grade A"—	
(a) Bottling establishments.....	3
(b) Shops	1
(c) Supplementary	1
(5) Dealers' licences to use the designation "Pasteurised"—	
(a) Pasteurising establishments	6
(b) Shops	15
(6) Individual dealers—	
(a) Licensed to use the designation "Certified" ..	3
(b) Licensed to use the designation "Grade A (Tuberculin Tested)"—	68
(c) Licensed to use the designation "Grade A"	5
(d) Licensed to use the designation "Pasteurised" ..	21

The following tables show the proportion of samples of Grade A and Grade A (Tuberculin Tested) milk which conformed with the standard laid down by the Order. In every instance of a sample being below standard steps were taken to ascertain the cause and to effect an improvement.

(a) Samples from Producers' Supplies (before bottling).

Period	Number of Samples examined	Number containing not more than 200,000 bacteria in 1 c.c.	Number with <i>B. Coli</i> absent in 1/100 c.c.	Number attaining Grade A standard by both tests	Percentage attaining Grade A standard
January—May ..	27	27	27	27	100
June—August ..	53	52	45	45	85
September—December ..	23	22	23	22	96
Totals ...	103	101	95	94	91

(b) Samples from Dealers' Supplies (after bottling).

Period	Number of Samples examined	Number containing not more than 200,000 bacteria in 1 c.c.	Number with <i>B. Coli</i> absent in 1/100 c.c.	Number attaining Grade A standard by both tests	Percentage attaining Grade A standard
January—May	221	217	219	216	93
June—August	128	104	98	91	71
September—December	180	175	171	168	93
Totals	529	496	488	475	90

In addition, 24 samples of Certified milk and 86 samples of Pasteurised milk were examined, two of the former and eleven of the latter being reported to be below the prescribed standards.

It has not been the policy of the Health Committee to insist on separate compartments for graded milk, as it was felt that a sufficient check was exercised by ascertaining the amount of any particular grade of milk obtained and sold each day, together with routine sampling and the imposition of regular biological and other tests. The Milk (Special Designations) Order, 1936, lays down a condition that all grades of milk must not only be kept separate from other milk but that such milk must not be treated or bottled at the same time as ungraded milk. In effect, this will mean that a separate compartment will have to be provided for each grade of milk dealt with by a dairyman, which can only result in the majority of the bottling licences for graded milks being relinquished at the end of 1936. Two of the licensed pasteurising establishments will also have difficulty in meeting this condition, as each deals in Tuberculin Tested, Accredited and Pasteurised milk as well as ungraded milk, and it is inconceivable that they will be prepared to sub-divide their dairies into four compartments, or alternatively deal with each type of milk at different periods of the day. The general effect of the new Order is bound to act adversely in restricting the sale of graded milk in Cardiff and will, in any event, effectually destroy the department's policy of encouraging the consumption of raw milk certified to be free from tubercle bacilli.

Ice Cream.—The manufacture and sale of ice cream is subject to similar provisions to those governing the preparation of cooked and preserved food. The number of such premises on the register is 448, and since powers of control were obtained considerable improvement has been effected in the methods employed in the making of this product. Manufacturers are now asked to set apart a separate building for the purpose and to have a satisfactory water supply and washing facilities available. The introduction of electric refrigerating machines and the use of cold mixtures also tend to reduce contamination.

The number of samples of ice cream submitted for bacteriological and chemical examination was 101, the results of which were as follows :—

Number of bacteria per c.c. :—	Number of Samples.
Under 100,000	49
100,000—200,000	14
200,000—500,000	12
500,000—1,000,000	16
Over 1,000,000	10
Presence of <i>Bacillus Coli</i> :—	
Absent in 1 c.c.	9
Present in 1 c.c.	25
" " 1/10 c.c.	21
" " 1/100 c.c.	18
" " 1/1,000 c.c.	15
" " 1/10,000 c.c.	13

Sixty-six of the samples contained starch and 16 contained gelatine.

Legal Proceedings.—The following is a summary of legal proceedings taken during the year in connection with food, etc., inspection :—

Acts, etc., under which Proceedings were taken	Number	Fined	Cautioned	To pay costs only	Dismissed	With-drawn	Amount of Fines and Costs
Food and Drugs (Adulteration) Act, 1928	48	13	9	6	—	20	£ s. d. 46 1 6
Milk and Dairies Acts and Order	6	4	2	—	—	—	3 10 0
Merchandise Marks Act, 1926	8	3	—	1	4	—	17 6 0
Fertilisers and Feeding Stuffs Act, 1926.	6	—	—	6	—	—	3 14 0
Totals	68	20	11	13	4	20	£70 11 6

Report for 1935 of Mr. S. Dixon, M.Sc., F.I.C., Public Analyst.

The work carried out during the year 1935 is summarised in the following statement, which shows the total number of samples examined and reported upon and the sources from which they were derived :—

Under the Food and Drugs (Adulteration) Act	1,449
Imported food for Port Sanitary Authority	32
Under the Fertilisers and Feeding Stuffs Act	20
Under the Rag Flock Acts	5
For the Public Health Department	5
For the Public Works Committee	17
For the Central Contracts Committee	1
For the Property and Markets Committee	1
For the Visiting (Mental Hospital) Committee	44
For the City Coroner	14
For the City Police	6
For the South Wales Flock Company	24
Total	1,618

These numbers are compared in the table below with those of previous years.

Total Number of Samples Examined, 1929-1935.

Year	Food and Drugs Act	Imported Food	Fertilisers and Feeding Stuffs Act	Rag Flock Acts	South Wales Flock Co	Miscellaneous	Totals
1929	1,006	11	12	3	—	5	1,037
1930	1,004	69	20	3	—	33	1,129
1931	1,141	56	20	9	—	47	1,273
1932	1,302	24	17	12	14	325	1,694
1933	1,486	32	19	11	21	56	1,625
1934	1,450	51	16	8	22	63	1,610
1935	1,449	32	20	5	24	88	1,618

It will be seen that the majority of the samples dealt with are taken under the Food and Drugs (Adulteration) Act, 1928, and the other Acts enumerated, but a very considerable amount of time is also involved in the analysis of the miscellaneous articles received from the various departments of the Corporation. Some of the latter are submitted in order to ascertain whether articles supplied conform with specifications laid down in contracts, others are related to health matters, while those examined for the City Coroner and Police have consisted of viscera and other articles taken in connection with the death of certain persons, suspected poisoning, safe-breaking, etc.

Food and Drugs (Adulteration) Act, 1928.—The total number of samples of food and drugs submitted for analysis under the Food and Drugs (Adulteration) Act, 1928, by the Sampling Officers of the Urban Sanitary Authority during the year was 1,449. This number is almost identical with that for 1934, when 1,450 samples were submitted under this Act, and it represents 6·48 samples taken for each 1,000 of the population of Cardiff as given in the census return for 1931. Seventy-six, or 5·2 per cent., were returned as adulterated. This percentage is practically the same as that for the whole of England and Wales in 1934, and in the following table the corresponding figures for previous years are given.

Percentage of Adulteration.

Year	Cardiff			England and Wales		
	Number Examined	Number Adulterated	Percentage Adulterated	Number Examined	Number Adulterated	Percentage Adulterated
1929	1,006	20	2·0	133,584	7,260	5·4
1930	1,004	33	3·3	136,515	6,496	4·8
1931	1,141	46	4·0	136,169	6,324	4·6
1932	1,302	67	5·1	137,981	7,019	5·1
1933	1,486	60	4·0	138,171	7,601	5·5
1934	1,450	87	6·0	140,583	7,451	5·3
1935	1,449	76	5·2	Return	not yet	available

The number and nature of the articles examined and the number of each variety classed as adulterated are shown below :—

Description of Sample	Number Examined	Number Adulterated
Apples	8	—
Apricots, Dried	12	—
Arrowroot	6	—
Aspirin tablets	2	—
Barley, Pearl	8	—
Boric ointment	4	1
Brandy	2	—
Brawn	2	—
Butter	46	—
Camphorated oil	8	—
Candied peel	2	—
Cheese	2	—
Cherries, Glacé	2	1
Cinnamon, Ground	4	—
Cocoa	4	—
Coffee	10	—
Cornflour	2	—
Cream	17	—
Custard powder	2	—
Epsom salts	4	—
Flour	6	—
Flour, Self-raising	4	—
Fruit juices and cordials	10	—
Gin	7	—
Ginger, Ground	2	—
Iodine, Tincture of	4	1
Jam	3	1
Lard	3	—
Lard substitute	1	—
Margarine	20	—
Meat paste	4	—
Meat, Potted	1	1
Milk	1,097	67
Milk, Condensed	4	—
Milk, Separated	1	—
Milk, Skimmed	6	—
Mint, Dried	4	2
Mint sauce	2	—
Oatmeal	3	—
Peas, Canned	4	—
Pepper	12	—
Pepper, Cayenne	4	—
Raisins	6	—
Rice	8	—
Rice flour	2	—
Rice, Ground	10	—
Rum	6	—
Salmon, Canned	1	—
Sandwich spread	1	—
Sardines, Canned	2	—
Sausage meat	4	—
Sausages	4	—
Sugar	4	—
Sultanas	14	—
Tea	10	—
Vinegar	19	2
Whiskey	9	—
Totals	1,449	76

Milk.—The present legal position with regard to the chemical composition of milk and the steps that are taken in Cardiff to differentiate between milk which is

naturally of poor quality and milk which is poor by reason of adulteration or careless handling, has been summarised in previous reports (Annual Reports of the Medical Officer of Health for Cardiff 1932, pages 66 and 67, and 1934, page 88). These methods of investigation have been used during the year under review and since their introduction, in cases where prosecutions have been instituted, the defence that the milk was "as it comes from the cow", which previously was invariably put forward, is now seldom advanced, and although most of the defendants plead not guilty to the charge against them, the arguments put forward usually amount to a plea of guilty, but with mitigating circumstances. These, however, must be considered in relation to the material gain which the defendant derives from adulteration, which not infrequently is very considerable, and also from the point of view of those who consume the milk and pay the same price for it as for genuine milk.

The two following tables show the average composition of all the milk samples, both genuine and adulterated, examined during 1935 and for the years 1929-1935.

Average Composition of all Milk Samples for each Month.

Month	1935				1929-1935			
	Number of Samples	Fat per cent.	Solids-not-fat per cent.	Total solids per cent.	Number of Samples	Fat per cent.	Solids-not-fat per cent.	Total solids per cent.
Jan.	53	3·84	8·81	12·65	388	3·76	8·80	12·56
Feb.	87	3·81	8·84	12·65	443	3·74	8·78	12·52
March	103	3·87	8·82	12·69	408	3·72	8·76	12·48
April	94	3·60	8·82	12·42	436	3·60	8·78	12·38
May	102	3·59	8·85	12·44	478	3·58	8·83	12·41
June	86	3·71	8·84	12·55	458	3·57	8·85	12·42
July	97	3·77	8·77	12·54	536	3·70	8·75	12·45
Aug.	71	3·81	8·71	12·52	439	3·71	8·79	12·50
Sept.	114	3·86	8·85	12·71	536	3·78	8·85	12·63
Oct.	115	4·01	8·96	12·97	547	3·98	8·91	12·89
Nov.	83	4·02	8·89	12·91	465	3·99	8·89	12·88
Dec.	92	3·88	8·74	12·62	436	3·85	8·80	12·65
Whole period ...	1,097	3·81	8·83	12·64	5,570	3·75	8·82	12·57

It will be observed from the monthly averages of more than 5,000 samples that milk usually has its lowest fat content in June and that it then gradually increases until November, after which there is a progressive fall until the minimum is reached. In 1935 the minimum occurred in May. The non-fatty solid content is fairly constant throughout the year.

Average Composition of all Milk Samples, 1929-1935.

Year	Number of Samples	Fat per cent.	Solids-not-fat per cent.	Total Solids per cent.
1929	487	3·71	8·87	12·58
1930	519	3·69	8·90	12·59
1931	600	3·79	8·78	12·57
1932	797	3·72	8·81	12·53
1933	987	3·72	8·78	12·50
1934	1,083	3·78	8·80	12·58
1935	1,097	3·81	8·83	12·64
1929-1935	5,570	3·75	8·82	12·57

During these seven years, the fat has varied from 3·69 per cent. in 1930 to 3·81 per cent. in 1935, while the non-fatty solids have ranged between 8·78 per cent. in 1931 and 1933 and 8·90 per cent. in 1930. The milk sampled in 1935 was of slightly better quality than that in any of the previous six years.

The presumptive limits fixed by the Sale of Milk Regulations, 1901, are :—

Fat	3·0 per cent.
Non-fatty solids	8·5 per cent.

Of the 1,097 samples of milk examined in 1935, 67, or 6·1 per cent., were returned as adulterated. In the following table these figures are compared with those of previous years.

Percentage of Adulteration of Milk Samples, 1929-1935.

Year	Number of Samples	Number Adulterated	Percentage Adulterated
1929	487	9	1·8
1930	519	15	2·9
1931	600	25	4·2
1932	797	50	6·3
1933	987	48	4·9
1934	1,083	60	5·5
1935	1,097	67	6·1

Particulars of the 67 samples classified as adulterated are as follows, the deficiencies in fat and non-fatty solids being based upon the limits prescribed by the Sale of Milk Regulations :—

Number	Formal or Informal	Nature of Adulteration or Irregularity			Designation
		Deficiency in fat per cent.	Deficiency in non-fatty solids per cent.	Added water by Freezing-point Test per cent.	
21	Informal	—	2½	6	Grade A (T.T.)
47	Informal	4	3	5½	
53	Informal	—	—	2½	
54	Informal	—	—	2½	
55	Informal	18	—	5½	
75	Informal	—	1	4	Grade A (T.T.)
101	Informal	14	—	—	
119	Informal	20	—	—	
128	Formal	27	7½	10	
134	Formal	—	2½	4	
135	Formal	—	½	3½	Grade A (T.T.)
136	Formal	—	—	2	
137	Formal	—	1½	4	
211	Informal	—	4	4½	
216	Formal	—	2½	2½	
249	Informal	21	—	—	Grade A (T.T.)
310	Formal	13	—	—	
328	Informal	4	—	—	
376	Formal	—	2	9	
377	Formal	—	2	9	
378	Formal	5	—	—	Grade A (T.T.)
379	Formal	5	—	—	
387	Formal	—	½	6	
396	Informal	5	—	—	

Number	Formal or Informal	Nature of Adulteration or Irregularity			Designation
		Deficiency of fat per cent.	Deficiency in non-fatty solids per cent.	Added water by Freezing- point Test per cent.	
403	Informal	15	—	—	Grade A (T.T.)
406	Informal	9	—	—	Grade A (T.T.)
416	Formal	5	—	—	
417	Informal	9	—	—	Grade A (T.T.)
454	Informal	9	—	—	Grade A (T.T.)
474	Informal	3	—	—	Grade A (T.T.)
496	Informal	5	—	—	Grade A (T.T.)
500	Informal	10	—	—	Certified
501	Informal	5	—	—	Grade A (T.T.)
512	Formal	—	1½	3	
523	Informal	30	—	—	
525	Formal	5	—	—	
561	Formal	14	—	—	
580	Informal	9	—	—	Grade A (T.T.)
582	Informal	3	—	—	Grade A (T.T.)
593	Informal	15	—	—	Grade A (T.T.)
636	Formal	13	—	—	
637	Formal	13	—	—	
695	Informal	—	2	3½	Grade A (T.T.)
793	Informal	10	—	—	Grade A (T.T.)
835	Informal	—	1½	3	Grade A (T.T.)
847	Formal	—	5	8	
848	Formal	8	5	10	
849	Formal	8	3	8½	
872	Informal	8	—	—	Grade A (T.T.)
933	Informal	9	2	3	Grade A (T.T.)
984	Informal	5	—	—	Grade A (T.T.)
1,053	Formal	5	—	—	
1,054	Formal	15	—	—	
1,115	Informal	6	—	—	Grade A (T.T.)
1,241	Formal	7	—	—	
1,336	Informal	—	—	1½	Grade A (T.T.)
1,355	Formal	3	—	—	
1,377	Informal	9	26	36	
1,378	Informal	—	21	32	
1,385	Formal	—	23	34	
1,386	Formal	11	25	36	
1,397	Formal	3	18	28	
1,398	Formal	—	18	28	
1,406	Formal	—	—	11	
1,407	Formal	—	—	3	
1,408	Formal	—	—	6½	
1,409	Formal	—	—	5	

The following are details of investigations made in respect of certain samples.

Following a complaint made to the Public Health Department, arrangements were made for an informal sample (No. 119) to be obtained immediately after delivery of the milk supplied to a large store. This was found to be deficient in fat to the extent of 20 per cent. when compared with the minimum limit of 3 per cent. laid down by the Sale of Milk Regulations. On the following day, a formal sample (No. 128) was procured from the retailer in course of delivery to the store. This was deficient of 27 per cent. of fat and of 7½ per cent. of non-fatty solids. The freezing point of this sample was $-0.473^{\circ}\text{C}.$, indicating the presence of at least 10 per cent. of added water. Two days later, four samples (Nos. 134-137) were taken on our behalf by the Glamorgan County Council in course of delivery from the farmer to the retailer, and as a result of a comparison of the freezing points, non-fatty solids and ash of these samples with the

corresponding values obtained from four appeal-to-cow samples (Nos. 140-143) which were obtained the next morning, it was evident that adulteration of the milk was taking place at the farm and that approximately three gallons of water had been added to the total quantity of milk in the four churns.

The results of analysis of this series of samples, showing the differences in composition, are set out in tabular form below :—

No.		Fat per cent.	Non- fatty solids per cent.	Total solids per cent.	Ash per cent.	F.P.(H) °C.	Remarks
119	Informal sample taken at store	2.40	8.85	11.25	—	—	Deficient of 20% of fat
128	Taken from retailer in course of delivery to store	2.17	7.86	10.03	0.68	—0.473	Contained at least 10% of added water and in addition was deficient of 19% of fat
134		4.24	8.28	12.52	0.71	—0.517	Contained approx. 4% of added water
135	Taken from farmer in course of delivery to retailer	3.55	8.45	12.00	0.73	—0.520	Contained approx. 3½% of added water
136		3.21	8.57	11.78	0.72	—0.528	Contained approx. 2% of added water
137		3.36	8.36	11.72	0.71	—0.516	Contained approx. 4% of added water
140		3.42	8.91	12.33	0.76	—0.544	
141	Corresponding appeal-to-cow-samples	3.69	8.89	12.58	0.77	—0.552	Of normal composition
142		3.59	8.99	12.58	0.77	—0.552	
143		4.76	9.04	13.80	0.78	—0.554	

Since none of the eight samples obtained from the farmer was deficient in fat, legal proceedings were instituted against both the retailer and farmer. The latter was fined £3 and £1 1s. 0d. costs and the retailer was ordered to pay £1 9s. 0d. costs.

Samples numbered 376 and 377, obtained from a retailer, were very similar in composition, each being deficient in non-fatty solids to the extent of 2 per cent. when compared with the minimum limit laid down by the Sale of Milk Regulations. The freezing points of these samples, however, were —0.482°C. and —0.481°C., indicating that each contained at least 9 per cent. of added water. The next morning, two samples (Nos. 386 and 387) were obtained at the premises of the retailer in course of delivery from the producer. No. 386 proved to be genuine milk, but No. 387 contained 8.45 per cent. of non-fatty solids and had a freezing point of —0.498°C., which indicated the presence of 6 per cent. of added water. An appeal-to-cow sample (No. 400) was then obtained on our behalf by the Monmouthshire County Council and this proved to be milk of excellent quality, having a normal freezing point of —0.531°C. The analytical data set out below show the difference in composition between the milk taken under strict supervision and the other samples :—

No.		Fat per cent.	Non- fatty solids per cent.	Total solids per cent.	Ash per cent.	F.P. (H) °C.	Remarks
376	From retailer	3.40	8.33	11.73	0.68	—0.482	} Each contained 9% of added water
377		3.38	8.30	11.68	0.68	—0.481	
386	Taken in course of delivery to retailer	3.56	8.56	12.12	0.75	—0.539	} Genuine Contained 6% of added water
387		3.46	8.45	11.91	0.68	—0.498	
400	Appeal to-cow sample	3.98	8.92	12.90	0.71	—0.531	Of normal composition

These investigations showed that adulteration of the milk was taking place before it reached the retailer. It was not possible, however, to take proceedings against the farmer, since the milk was taken from the farm to the retailer by a carrier who was not the agent of the farmer but was employed by an intermediate wholesale vendor, and, therefore, when the in-course-of-delivery samples were taken at the dairy of the retailer, the milk was out of the possession of the farmer. The farmer was therefore cautioned and subsequent samples from his supply proved to be of satisfactory composition.

Samples 636 and 637, obtained from a retailer, were identical in composition, each showing a deficiency to the extent of 13 per cent. of fat as compared with the minimum limit of the Sale of Milk Regulations, and to the extent of 23 per cent. as compared with a sample procured the following morning in course of delivery from the wholesaler. The actual figures of analysis of these samples were :—

No.		Fat per cent.	Non-fatty solids per cent.	Total solids per cent.
636 } 637 }	From retailer	2·60 2·60	8·84 8·84	11·44 11·44
648	From wholesaler in course of delivery to retailer	3·40	8·82	12·22

The three samples consisted of morning milk from the same source. Legal proceedings were taken against the retailer, who attributed the deficiencies to his boy previously selling some of the milk from the churn without plunging it after it had been standing. He was warned by the Stipendiary Magistrate and ordered to pay costs amounting to £1 5s. 6d.

Samples 846 and 847 were obtained from a retailer. No. 846 was genuine milk of good quality, but No. 847 was deficient in non-fatty solids to the extent of 5 per cent., and its freezing point, $-0\cdot487^{\circ}\text{C}.$, proved that the deficiency was due to the addition of 8 per cent. of water. This vendor obtained his milk from a wholesale dealer. On the next morning a sample (No. 858) was taken from the wholesaler at the time of delivery to the retailer. Although the results of analysis suggested that this sample was not from the same source of supply as that delivered the day before, it was free from extraneous water and the wholesaler stated that he always delivered the milk to this retailer in one receptacle and had done so the previous day. It was therefore obvious that the retailer must have been responsible for the adulteration, since part of his milk was genuine, and calculation showed that if milk No. 846 were diluted so as to contain $8\frac{1}{2}$ per cent. of added water, its composition would then be almost identical with that of sample No. 847. The composition of these samples, which were all evening milk, was as follows :—

No.		Fat per cent.	Non- fatty solids per cent.	Total solids per cent.	Ash per cent.	F.P. (H) $^{\circ}\text{C}.$	Remarks
846	From retailer's hand- pail	4·08	8·82	12·90	0·75	$-0\cdot540$	Genuine Contained 8% of added water
847	From retailer's churn	3·80	8·02	11·82	0·69	$-0\cdot487$	
858	From producer in course of delivery to retailer	3·75	8·45	12·20	0·75	$-0\cdot539$	Genuine

The retailer was prosecuted and he was fined £1, due regard being paid his previously satisfactory record.

Milks 848 and 849, obtained from a producer-retailer, were stated to be evening milk and morning milk respectively. No. 848 was deficient of 8 per cent. of fat and 5 per cent. of non-fatty solids, and No. 849 was deficient of 8 per cent. of fat and 3 per

cent. of non-fatty solids, when compared with the minimum limits of the Sale of Milk Regulations. The freezing points were $-0.476^{\circ}\text{C}.$ and $-0.483^{\circ}\text{C}.$, showing the presence of 10 per cent. and $8\frac{1}{2}$ per cent. of added water in the respective samples, and accounting for the deficiencies in both non-fatty solids and fat. On the next evening and the following morning appeal-to-cow samples were procured on our behalf by the Monmouthshire County Council, the farm being situated in their administrative area. Three samples were taken, No. 861 being the evening milk as produced by the cows, No. 862 from this same milk after it had passed over the cooler and No. 863 the morning milk as given by the cows. The inspector had observed that there was a small leak in the cooler, but the results of analysis of the two samples of evening milk showed that this was insufficient to alter the composition during the time the milk was passing over the cooler. These three samples were of normal composition and confirmed the conclusions that the original samples contained added water to the extent indicated by their freezing points. The marked differences in the analytical data are shown below.

Evening Milk.

No.		Fat per cent.	Non- fatty solids per cent.	Total solids per cent.	Ash per cent.	F.P. (H) $^{\circ}\text{C}$	Remarks
848	As retailed	2.74	8.00	10.74	0.67	-0.476	Contained 10% of added water
861	As produced by cows	3.42	8.88	12.30	0.75	-0.540	Of normal quality
862	After cooling	3.42	8.88	12.30	0.75	-0.540	" "

Morning Milk.

849	As retailed	2.76	8.22	10.98	0.67	-0.483	Contained $8\frac{1}{2}\%$ of added water
863	As produced by cows	3.10	8.90	12.00	0.74	-0.541	Of normal quality

Legal proceedings were instituted against the vendor, who pleaded guilty, and, in spite of the above results, attributed the presence of the extraneous water to the cooler leaking. He was fined £3 and £1 ls. 6d. costs.

Samples 1,053 and 1,054, obtained from another producer-retailer, were deficient in fat to the extent of 5 per cent. and 15 per cent. respectively when compared with the minimum limit of the Sale of Milk Regulations, and to the extent of 33 per cent. and 40 per cent. respectively when compared with a corresponding appeal-to-cow sample (No. 1,057) taken on our behalf the following evening by the Monmouthshire County Council. The results of analysis of these milks were:—

No.		Fat per cent.	Non-fatty solids per cent.	Total solids per cent.
1,053 } 1,054 } 1,057 }	As retailed	2.85	8.62	11.47
		2.54	8.58	11.12
	As produced by cows	4.21	8.56	12.77

The vendor was summoned and, in pleading "guilty", said the deficiencies were due to failure to stir the milk before removing some of it for bottling. He was fined £3 and 10 - costs.

In consequence of a complaint made to the Public Health Department by a large firm with regard to the apparent quality of milk from a particular source, informal samples (Nos. 1,377 and 1,378) were taken immediately upon delivery of this milk at

air dairy. The former, which was labelled morning milk, was deficient of 9 per cent. fat and 26 per cent. of non-fatty solids, and the latter, which was evening milk, was efficient of 21 per cent. of non-fatty solids as compared with the limits of the Sale of Milk Regulations. The freezing points of these two samples were $-0.348^{\circ}\text{C}.$ and $-0.373^{\circ}\text{C}.$ respectively, and they proved that the deficiencies were due to the presence of at least 34 per cent. and 29 per cent. respectively of added water. This milk was conveyed to Cardiff by an agent of the firm, and it was therefore necessary to ascertain whether the adulteration occurred at the farm or in course of transit. Arrangements were made with the Glamorgan County Council, in whose area the farm was situated, for samples to be taken at the farm in course of delivery to the collector. These were Nos. 1,385 and 1,386, and again the milk was found to be extensively adulterated, the freezing points of these samples showing that at least 31 per cent. and 33 per cent. of added water was present in them. These in-course-of-delivery samples were taken on a Saturday morning, and although the farmer was then aware of our investigations, the adulteration continued (doubtless in order to keep the bulk up to the quantity that had been delivered to the dairy for some time past), for each of two samples (Nos. 1,397 and 1,398) taken at the dairy on the following morning (Sunday) were found to contain at least 25 per cent. of added water as indicated by the freezing-point test.

In order to confirm the conclusions arrived at from the analytical data obtained in respect of these samples, on the Monday evening and Tuesday morning appeal-to-cow samples (Nos. 1,404 and 1,405) were obtained for us, and these proved to be of excellent quality, with high non-fatty solids and large freezing-point depressions ($0.548^{\circ}\text{C}.$ and $0.550^{\circ}\text{C}.$), which indicated that the amount of water actually added was about 2 per cent. more than the minimum quantity which was based upon the minimum depression of the freezing-point for genuine milk, viz., $0.530^{\circ}\text{C}.$ When these milks from which the appeal-to-cow samples were taken were delivered in Cardiff, further samples (Nos. 1,406 and 1,407) were obtained, and although the composition of these was above the presumptive limits given in the Sale of Milk Regulations, comparison of the results with those of the corresponding appeal-to-cow samples showed that the fat, non-fatty solids, ash and freezing-point depressions had all been reduced in the same ratio in each sample and proved that they contained 11 per cent. and 3 per cent. respectively of added water. Similar results were obtained with samples 1,408 and 1,409, taken immediately after delivery in Cardiff on the next morning. These contained $6\frac{1}{2}$ and 5 per cent. of added water respectively, though again this amount was insufficient to reduce the non-fatty solids below the limits of the Sale of Milk Regulations. Adulteration therefore continued, though to a much less extent.

The gross adulteration of the earlier samples and the differences in composition between the milk as produced by the cows and that subsequently delivered in Cardiff is readily apparent in the following tables:—

Morning Milk.

No.		Fat per cent.	Non- fatty solids per cent.	Total solids per cent.	Ash per cent.	F.P.(H) $^{\circ}\text{C}.$	
1,377	Dec. 11. At dairy of wholesaler	2.73	6.22	8.95	0.54	-0.348	Contained 36% of added water
1,386	Dec. 14. From producer in course of delivery to wholesaler	2.66	6.32	8.98	0.53	-0.350	Contained 36% of added water
1,397	Dec. 15. (Sunday) From wholesaler	2.91	6.95	9.86	0.60	-0.394	Contained 28% of added water
1,405	Dec. 17. As produced by cows at farm	4.22	9.66	13.88	0.81	-0.550	Of excellent quality
1,407	Dec. 17. Upon arrival at Cardiff	4.07	9.41	13.48	0.79	-0.533	Contained 3% of added water
1,409	Dec. 18. At dairy of wholesaler	4.02	9.18	13.20	0.76	-0.521	Contained 5% of added water

Evening Milk.

378	Dec. 11. At dairy of wholesaler	3.68	6.66	10.34	0.58	—0.373	Contained 32% of added water
385	Dec. 14. From producer in course of delivery to wholesaler	3.37	6.51	9.88	0.54	—0.361	Contained 34% of added water
398	Dec. 15. (Sunday). From wholesaler	3.44	6.92	10.36	0.58	—0.394	Contained 28% of added water
404	Dec. 16. As produced by cows at farm	4.14	9.66	13.80	0.81	—0.548	Of excellent quality
406	Dec. 17. Upon arrival at Cardiff	3.64	8.64	12.28	0.72	—0.486	Contained 11% of added water
408	Dec. 18. At dairy of wholesaler	4.52	9.00	13.52	0.76	—0.510	Contained 6½% of added water

The producer was summoned in respect of the samples (1,385 and 1,386) taken from him in course of delivery to the wholesaler. There were 24 gallons of milk in the two churns from which these were taken, and the total quantity of added water present amounted to almost 8½ gallons. The farmer attributed this to a leak in the cooler. He was fined £20 and ordered to pay £3 3s. 0d. costs.

Investigations have been carried out in respect of certain other samples of milk, but the extent of the adulteration or the irregularities found did not warrant legal proceedings being taken. The results of analysis of milk No. 523, which was deficient of 30 per cent. of fat, were communicated to the Glamorgan County Council for further investigation by them. Seven of the eight samples of graded milk which yielded evidence of containing small quantities of extraneous water were from the same retailer and were from one source of supply. Both the vendor and retailer were cautioned, and since then there has been no cause for complaint. The deficiencies in fat in the graded milks undoubtedly have been due to one of two causes, either not bulking the milk properly so as to distribute the fat from the whole herd evenly, or failure to stir the milk in a churn before bottling it. In the appeal case of *Dyke v. Gower*, which dealt with milk which was deficient in fat due to the fact that the defendant had neglected to keep it stirred, and the earlier customers had been supplied with that portion which was the richer in cream, Lord Coleridge, C.J., said, "Where, however, the alteration is followed by the actual sale, the intent with which the article was altered must become perfectly immaterial, the injury to the purchaser being just the same whether there was a wrongful intent or not". It is an anomalous position that, while it is an offence to sell milk which is, say, deficient of 15 per cent. of fat because this has been served to other customers owing to failure to keep the bulk stirred, yet there is no offence if the cows are producing milk equally poor in fat. No housewife would consider such milk as of the "quality demanded" and it is obvious that the "injury to the purchaser" is the same in both cases. It is undoubtedly time that a minimum limit for the fat content of merchantable milk was fixed, and the present presumptive limit of 3.0 per cent. is not too high, for reference to the averages of all the samples taken during the period 1929-1935 shows that a large majority of the samples, even during the early summer months, have a fat content much in excess of this, the averages for April, May and June ranging from 3.57 per cent. to 3.60 per cent. When any change in the law relating to the composition of milk is made, the Hortvet freezing-point test should also be recognised officially.

On the average, graded milk has again been superior in composition to ordinary milk. The differences for 1935 and previous years are shown in the following table:—

Average Composition of Graded and Ordinary Milk, 1932-1935.

Year	Graded Milk				Ordinary Milk			
	Number of Samples	Fat per cent.	Non-fatty Solids per cent.	Total Solids per cent.	Number of Samples	Fat per cent.	Non-fatty Solids per cent.	Total Solids per cent.
1932	270	3.78	8.87	12.65	527	3.68	8.79	12.47
1933	465	3.79	8.80	12.59	522	3.65	8.76	12.41
1934	652	3.84	8.81	12.65	431	3.68	8.78	12.46
1935	657	3.90	8.82	12.72	440	3.67	8.85	12.52
1932-35	2,044	3.85	8.81	12.66	1,920	3.67	8.79	12.46

The following samples, which were slightly low in non-fatty solids, had normal freezing points and were returned as genuine :—

No.	Fat per cent.	Non-fatty solids per cent.	Total solids per cent.	Freezing point (Hortvet) °C.
250	4.90	8.32	13.22	—0.546
251	4.80	8.38	13.18	—0.546
357	3.30	8.37	11.67	—0.541
546	3.00	8.40	11.40	—0.533
660	4.38	8.26	12.64	—0.541
858	3.75	8.45	12.20	—0.539
1,055	4.85	8.43	13.28	—0.544

Particulars and the results of analysis of all the appeal-to-cow samples taken during the year are collated below :—

No.		Fat per cent.	Non- fatty solids per cent.	Total solids per cent.	Ash per cent.	F.P.(H) °C.
140	Morning Milk, 46 cows, 50 gallons	3.42	8.91	12.33	0.76	—0.544
141		3.69	8.89	12.58	0.77	—0.552
142		3.59	8.99	12.58	0.77	—0.552
143		4.76	9.04	13.80	0.78	—0.554
400	Evening milk	3.98	8.92	12.90	0.71	—0.531
861	Evening milk, 6 cows, 5 gallons	3.42	8.88	12.30	0.75	—0.540
863	Morning milk, 6 cows, 7 gallons	3.10	8.90	12.00	0.74	—0.541
1,057	Evening milk, 6 cows, 12 gallons	4.21	8.56	12.77	0.74	—0.541
1,404	Evening milk	4.14	9.66	13.80	0.81	—0.548
1,405	Morning milk	4.22	9.66	13.88	0.81	—0.550

Articles other than Milk.—During the year, 352 samples other than milk were examined. The number and nature of the various articles are set out in the table on page 93. Nine, or 2.6 per cent., were returned as adulterated, and particulars of these are tabulated below.

Articles other than Milk—Adulterated Samples.

No.	Article	Formal or Informal	Nature of Adulteration or Irregularity
264	Tincture of Iodine	Formal	The potassium iodide content was 61 per cent. in excess of the maximum given in the British Pharmacopoeia, 1932.
550	Vinegar	Formal	Deficient in acetic acid to the extent of 5 per cent.
817	Vinegar	Formal	Deficient in acetic acid to the extent of 38 per cent.
823	Boric Ointment	Formal	Deficient of 5 per cent. of the prescribed amount of boric acid and prepared with a yellow paraffin base, whereas the British Pharmacopoeia, 1932, directs white paraffin ointment to be used.
981	Potted Meat (Chicken and Ham)	Formal	Contained 10 per cent. of rice flour and 33 per cent. of added water.
1,059	Dried Mint	Formal	Contained 15 per cent. of ailanthus leaves.
1,060	Dried Mint	Formal	Contained 12 per cent. of ailanthus leaves.
1,251	Glacé Cherries	Informal	Contained an excess of 30 parts of sulphur dioxide per million.
1,440	Jam (Apple and Plum)	Informal	Deficient of 4 per cent. of the minimum amount of soluble solids.

The vendors of the tincture of iodine, boric ointment, glacé cherries and jam, and of the vinegar which was deficient of 5 per cent. of the minimum amount of acetic acid that should be present in this article, had their attention drawn to the discrepancies.

The two samples of dried mint were from old stock of the same brand. The vendors returned the remainder of their stock to the packers who are now supplying this article free from foreign leaves.

Sample No. 981, submitted as potted meat, was labelled on the jars "Chicken & Ham." The results of analysis indicated that the contents were approximately :—

Meat	....	....	55 per cent.
Rice flour	....	....	10 " "
Added salt	....	....	2 " "
Added water	....	....	33 " "
Total			100

The article was therefore a meat paste of most inferior quality. The opinion was expressed that it was misleading to the public to label such an article "Chicken & Ham" and unfair to manufacturers of meat pastes of good quality who label their products in such a way as to indicate the nature of the article. Proceedings were taken against the vendor, who pleaded guilty, and he was fined £2 and 4/- costs.

Sample No 817, which was sold as vinegar, consisted of artificial vinegar and was deficient in acetic acid to the extent of 38 per cent. The vendor was summoned and fined £1

Public Health (Preservatives, etc., in Food) Regulations.—No preservatives were found in any of the samples of milk, cream, butter or margarine. In the following table the various articles in which preservatives were detected and the amounts present are shown :—

Article	Number Examined	Number containing Preservative	Preservative	Parts per million	
				Amount present	Maximum permitted
Apricots, Dried	12	12	Sulphur dioxide	397, 580, 710, 805, 985, 1,005, 1,050, 1,265, 1,385, 1,450, 1,470, 1,495.	2,000
Candied Peel ...	2	1	" "	90	100
Cherries, Glacé	2	2	" "	75, 130,	100
Fruit Juices and Cordials	10	9	{ Sulphur dioxide (5) Benzoic acid (4)	54, 140, 180, 235, 260 260, 370, 470, 475	350 600
Jam	3	3	Sulphur dioxide	15, 20, 20	40
Raisins	6	6	" "	265, 280, 320, 320, 460, 465	750
Sausages	4	2	" "	300, 355	450
Sultanas	14	6	" "	355, 425, 425, 435, 670, 710	750

Summary of Legal Proceedings.—The results of prosecutions under the Food and Drugs (Adulteration) Act, 1928, are summarised in the following table :—

No. of Sample	Article	Result of Analysis	Result of Prosecution
128	Milk	Contained 10% of added water and deficient of 19% of fat	Paid £1 9s. 0d. costs
134	Milk	Contained 4% of added water	Fined £3 and £1 1s. 0d. costs
636	Milk	Deficient of 13% of fat	Paid £1 5s. 6d. costs
847	Milk	Contained 8% of added water	Fined £1
848	Milk	Contained 10% of added water	} Fined £3 and £1 1s. 6d costs
849	Milk	Contained 8½% of added water	
1,054	Milk	Deficient of 15% of fat	Fined £3 and 10/- costs
1,385	Milk	Contained 34% of added water	Fined £10 } and £3 3s.
1,386	Milk	Contained 36% of added water	Fined £10 } costs
981	Potted Meat	Contained 10% of rice starch and 33% of added water	Fined £2 and 4/- costs
817	Vinegar	Deficient of 38% of acetic acid	Fined £1

Summonses in respect of the following samples were withdrawn on the suggestion of the Stipendiary Magistrate, the circumstances being similar to the associated samples for which the defendants were prosecuted :—

Nos. 135, 136 and 137 (connected with No. 134).

No. 637 (connected with No. 636).

No. 1,053 (connected with No. 1,054).

The total of the fines and costs in respect of samples examined during the year amounted to £41 14s. 0d. Comparison with previous years is made below :—

Year	Prosecutions	Convictions	Dismissed	Fines	Costs	Total
				£ s. d.	£ s. d.	£ s. d.
1929	5	1	4	6 0 0	—	6 0 0
1930	16	12	4	18 0 0	3 9 6	21 9 6
1931	14	14	—	24 15 0	6 6 7	31 1 7
1932	17	13	4	23 10 0	0 11 6	24 1 6
1933	7	6	1	29 0 0	1 18 6	30 18 6
1934	19	16	3	38 10 0	22 6 0	60 16 0
1935	11	11	—	33 0 0	8 14 0	41 14 0
1929-1935	89	73	16	172 15 0	43 6 1	216 1 1

Summonses in respect of one sample in 1934 and five samples in 1935 were withdrawn.

Imported Food.—In addition to the samples of food and drugs analysed for the Urban Sanitary Authority, 32 samples of imported food were examined for the Port Sanitary Authority. The following table shows the nature and number of each article, the amount of preservative when this was found to be present, and the country of origin where stated :—

Article	Origin	Number Examined	Number containing Preservative	Sulphur Dioxide in parts per million	
				Amounts present	Maximum permitted
Cocoa Butter	—	1	—	35, 50, 90, 95	100
Glacé Cherries	France	4	4		
Lard	—	1	—		
Malt Coffee	—	1	—		
Oleo Oil	—	1	—	45, 185, 210, 225, 225, 245, 300, 395, 485, 505	750
Raisins	Spain	12	10		
Raisins	S. Africa	1	—		
Sardines	Portugal	2	—		
Sultanas	California	8	8	365, 365, 575, 585, 600, 620, 750, 750	750
Strawberry Pulp	—	1	1		
				1,800	2,000

The malt coffee was a roasted cereal preparation.

The samples of cocoa butter, lard and oleo oil had normal chemical and physical constants and there was no evidence to indicate that they contained any foreign fat.

The sardines contained only 1 and 6 parts of lead per million respectively, which amounts are well below the tentative maximum limit of 20 parts fixed at a conference of Port Medical Officers in 1933.

Fertilisers and Feeding Stuffs Act, 1926.—During the year, 20 samples of feeding stuffs were submitted under this Act. Of these, 5 were official samples, the remainder being taken informally. Particulars of the articles are as follows :—

Article	Number Examined	Number Unsatisfactory	
		In Composition	In Declaration
Compound Cake	2	—	—
Compound Meal	1	—	—
Feeding Meat and Bone Meal	1	—	—
Flaked Maize	1	—	—
Maize Meal	1	—	—
Middlings	1	—	1
Poultry Foods :—			
Fattening Mash	4	4	1
Growers' Mash	3	2	—
Layers' Mash	4	3	1
Sharps	1	—	1
Sussex Ground Oats	1	—	1
Totals	20	9	5

Details of samples unsatisfactory in composition are given in the following table :—

Serial No.	Feeding Stuff	Nature of Irregularity		
112	Growers' Mash	Deficient in oil and albuminoids, and excess of fibre present		
		Guaranteed	Found	
		Oil	4.25%	3.7%
		Albuminoids	16.84%	11.0%
		Fibre	4.85%	6.6%
113	Growers' Mash	Deficient in albuminoids		
		Guaranteed	Found	
		Albuminoids	16.0%	12.7%
116	Fattening Mash	Excess of oil and albuminoids, and deficient in fibre		
		Guaranteed	Found	
		Oil	4.75%	5.7%
		Albuminoids	11.39%	14.0%
		Fibre	8.35%	5.3%
117	Layers' Mash	Deficient in fibre		
		Guaranteed	Found	
		Fibre	7.25%	4.4%
118	Layers' Mash	Deficient in albuminoids		
		Guaranteed	Found	
		Albuminoids	19.0%	14.5%
119	Fattening Mash	Excess of oil and deficient in albuminoids		
		Guaranteed	Found	
		Oil	4.0%	4.9%
		Albuminoids	16.0%	13.6%
120	Fattening Mash	Excess of oil and albuminoids and deficient in fibre		
		Guaranteed	Found	
		Oil	1.0%	3.3%
		Albuminoids	7.0%	14.7%
		Fibre	12.0%	5.0%
123	Fattening Mash	Excess of oil and deficient in albuminoids		
		Guaranteed	Found	
		Oil	4.0%	4.7%
		Albuminoids	16.0%	14.0%
124	Layers' Mash	Deficient in oil and albuminoids		
		Guaranteed	Found	
		Oil	3.5%	3.0%
		Albuminoids	19.0%	15.3%

Statutory statements containing the particulars required by the Act were not supplied with five of the samples, two of which were fattening mash (No. 120) and layers' mash (No. 121). The inspector subsequently visited the vendor who supplied them and obtained the analytical details which should have been given at the time of purchase. In the case of the fattening mash, these did not agree with the actual composition of the article, but an official sample could not be obtained. Vendors of feeding stuffs in Cardiff have been circularised and the requirements of Section 1 of the Act relating to the giving of statutory statements brought to their notice. Verbal warnings had also been given to this vendor and proceedings were instituted against him for failure to supply statutory statements in these two cases. He was further warned by the Stipendiary Magistrate and ordered to pay costs amounting to £2 5s. 0d.

Another vendor was ordered to pay £1 9s. 0d. costs in a similar case, but the feeding stuff purchased was not submitted for analysis.

Warnings were given in respect of the other samples where statutory statements were not supplied, and appropriate action was taken in those cases where the composition of the articles did not agree with the particulars given.

The flaked maize was obtained in connection with a sample taken at the end of 1934 and which proved to be deficient in oil. Although it was an informal sample, it was drawn in the prescribed manner from the contents of several sacks, and was found to agree in composition with the particulars given in the statutory statement. It is possible that the low oil content of previous samples was due to the fine germ, which is rich in oil, falling to the bottom of the sack. Should this occur, a small quantity sold from the top of a sack would not be representative of the bulk.

Rag Flock Acts, 1911 and 1928.—Five samples of rag flock obtained from upholsterers conformed with the standard of cleanliness laid down by the Rag Flock Regulations, 1912. The maximum amount of water-soluble chlorine permitted is 30 parts per 100,000 of flock; the quantities present in these samples varied from 3·5 to 23·5 parts per 100,000.

Public Health Department.—Samples of biscuits (which were examined for poisonous metals and found to be free from them), "Prenatalac" milk food, Bland's pills, milk and flock were examined. The flock contained 122 parts per 100,000 of water-soluble chlorine, but this material was not rag flock as defined by the Regulations, and the limit of 30 parts per 100,000 did not therefore apply to it.

Public Works Committee.—Of 17 samples of mortar submitted by the City Engineer, four were deficient in lime, one containing only 4·5 per cent. by weight of lime (CaO) in the moisture-free sample, whereas, when made in accordance with the specification, moisture-free mortar contains from 11 to 12 per cent. of lime.

Central Contracts Committee.—A sample of soap submitted was found to comply with the specification contained in the grocery schedule.

Property and Markets Committee.—A sample of white Windsor soap examined for this committee was of satisfactory quality.

Mental Hospital.—The arsenic content of 30 specimens of cerebro-spinal fluid and 14 samples of viscera, etc., from two rabbits was determined for the Director of Research at the Biochemical Laboratories of the Hospital.

City Coroner and City Police.—In connection with the death of a man, the Coroner submitted five samples, consisting of the stomach and its contents, portions of the large and small intestines and a small quantity of vomit. Potassium Quadroxalate was found in the stomach and contents to the extent of 49 grains, in the small intestines 17 grains, and two grains were present in the vomit. There was no evidence of any oxalate in the large intestine. It was evident that considerably more than a fatal dose of this substance had been taken. The Chief Constable submitted six other articles for analysis in connection with the death of this man, and some of these were found to contain the same poisonous substance.

Nine other samples, consisting of viscera, vomit, etc., were examined for the Coroner in connection with two other deaths, but no poisonous substances were found.

South Wales Flock Company.—Of 24 samples of rag flock taken at the works of the South Wales Flock Company, 22 complied with the requirements of the Rag Flock Regulations, the amount of water-soluble chlorine in them varying from 11 to 28 parts per 100,000 of flock. The other two contained 36 and 42 parts per 100,000, being an excess of 6 and 12 parts per 100,000 respectively.

XVII.—HOUSING.

The following is a statement in the form required by the Ministry of Health in relation to housing :—

1. *Inspection of Dwelling-houses during the Year :—*

(1) (a) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	8,365
(b) Number of inspections made for the purpose	11,731
(2) (a) Number of dwelling-houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925	526
(b) Number of inspections made for the purpose	1,260
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	1
(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation	1,971

2. *Remedy of Defects during the Year without Service of Formal Notices :—*

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers	1,889
--	-------

3. *Action under Statutory Powers during the Year :—*

(a).—Proceedings under Sections 17, 18 and 23 of the Housing Act, 1930 :

(1) Number of dwelling-houses in respect of which notices were served requiring repairs	39
(2) Number of dwelling-houses which were rendered fit after service of formal notices :—	
(a) By owners	37
(b) By Local Authority in default of owners	2

(b).—Proceedings under Public Health Acts :—

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied	312
(2) Number of dwelling-houses in which defects were remedied after service of formal notices :—	
(a) By owners	299
(b) By Local Authority in default of owners	—

(c).—Proceedings under Sections 19 and 21 of the Housing Act, 1930 :

(1) Number of dwelling-houses in respect of which Demolition Orders were made	15
(2) Number of dwelling-houses demolished in pursuance of Demolition Orders	—

(d).—Proceedings under Section 20 of the Housing Act, 1930 :

(1) Number of separate tenements or underground rooms in respect of which Closing Orders were made	1
(2) Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or room having been rendered fit	—

House Inspection.—The results of all recorded house inspections during the year have been summarised in the following statement :—

Structurally separate dwellings inspected and recorded	526
---	-----

Number overcrowded as measured by :—				
Air-space standard*	....	....	....	12
Undesirable intermingling of sexes†	....	....	....	8
Registrar-General's standard‡	....	....	....	26
Number with :—				
One family ....	....	....	....	340
Two families ....	....	....	....	165
Three families ....	....	....	....	19
More than three families	....	....	....	2
Without through ventilation	....	....	....	—
Without satisfactory washing accommodation	....	....	....	92
Without satisfactory cooking arrangements	....	....	....	13
Without proper food pantries	....	....	....	387
Without troughs ....	....	....	....	165
Dampness from :—				
Defective roofs, shutes or downpipes	....	....	....	169
Defective outside plastering or joints	....	....	....	96
Lack of, or defective, damp-proof courses	....	....	....	8
With earth or pail closets ....	....	....	....	—
Drained to cesspools ....	....	....	....	5
Without flushing cisterns ....	....	....	....	251
With flushing cisterns out of repair	....	....	....	21
Without covered galvanised iron ash-bins	....	....	....	510

Multiple Tenancy.—Notwithstanding the number of new houses provided in recent years, there has been virtually no reduction in the proportion of houses found on inspection to be occupied by more than one family. The number and percentage of houses found to be occupied by more than one family during each year since 1928 are as follows :—

<i>Year.</i>	<i>Number of Houses Inspected.</i>	<i>Percentage occupied by more than One Family.</i>
1928	846	43·8
1929	1,163	40·8
1930	904	36·9
1931	1,873	30·1
1932	1,299	26·3
1933	1,164	31·2
1934	829	33·8
1935	526	35·3

The result of the recent overcrowding survey, in which the proportion of houses occupied by more than one family was found to be 28·8 per cent., has to some extent confirmed the findings in previous years.

Housing Act, 1930.—The 17 clearance orders made by the City Council which were referred to in the last report, were the subject of a Ministry of Health inquiry on 29th January, 1935. Considerable opposition was met with from the owners of the property, but each of the orders (with minor modifications in some cases) was subsequently confirmed. Progress in rehousing the displaced families was made but was not completed during the year.

Particulars of the areas and each group of houses dealt with, together with the Minister of Health's decisions, are given in the tables on pages 110-114.

* At least 300 c. ft. per adult and 150 c. ft. per child under 10 years of age in bedrooms.

† Where two or more persons of the opposite sex, each over 13 years of age, excluding married couples, occupy the same room for sleeping purposes.

‡ More than two persons per room. Both living and sleeping rooms are included in the total number of rooms, and all children are counted as adults.

MOUSING ACT, 1930.

THE CITY OF CARDIFF NUMBERS 1 to 17 CLEARANCE ORDERS, 1934.

Number of Clearance Order	Buildings included in Clearance Order made by Council	Number of Houses included in Clearance Order made by Council	Number of other Buildings included in Clearance Order made by Council	Total Number of Houses and other Buildings included in Clearance Order made by Council	Decision of Minister of Health	Number of Houses excluded from Confirming Clearance Order and from Clearance Area	Number of Houses excluded from Confirming Clearance Order and from Clearance Area	Number of other Buildings excluded from Confirming Clearance Order and from Clearance Area	Number of other Buildings demolished	Total Number of Houses and other Buildings demolished	Number of persons to be displaced and in respect of whom Exchequer Grant to be made under Section 26 (2) of Housing Act, 1930
1	Nos. 2, 3, 4, 5, 6 and 7, Roberts Court	6	—	6	Clearance Order confirmed subject to modification that W.C. in ground floor of No. 7, Robert's Court (Reference No. 6 in Clearance Order) entered from the yard of No. 42, Bridge Street be excluded from Clearance Order and from Clearance Area.	—	—	—	6	6	15
2	Nos. 1, 2 and 3, Davies Court.	3	—	3	Clearance Order confirmed.	—	—	—	3	3	12
3	Nos. 15, 16, 17, 18 and 19, Canal St.	5	—	5	Clearance Order confirmed.	—	—	—	5	5	16
4	Nos. 1, 2, 3, 4 and 5, Garth Court.	5	—	5	Clearance Order confirmed.	—	—	—	5	5	21
5	Nos. 1, 2, 3, 4, 5, and 6, Old Sea Lock Court, and Nos. 3, 5 and 6, Old Sea Lock.	9	—	9	Clearance Order confirmed.	—	—	—	9	9	32
6	Nos. 1, 2, 3 and 5, Delta Street; Nos. 4, 5 and 6, Leckwith Road, and Delta Street Garage adjoining No. 6, Leckwith Road.	7	1 (Delta Street Garage adjoining No. 6, Leckwith Road).	8	Clearance Order confirmed subject to modification that Delta Street Garage adjoining No. 6, Leckwith Road (Reference No. 8 in Clearance Order) be excluded from Clearance Order and from Clearance Area.	—	—	1 garage	7	7	28
7	Nos. 29, 30, 31, 32, 33 and 34, Mill-cent Street	6	—	6	Clearance Order confirmed.	—	—	—	6	6	20

Decision of Minister of Health												
Number of Clearance Order	Buildings included in Clearance Order made by Council	Number of Houses included in Clearance Order made by Council	Number of other Buildings included in Clearance Order made by Council	Total Number of Houses and other Buildings included in Clearance Order made by Council	Clearance Order confirmed subject to modification that No. 1, Little Frederick Street, and No. 28, Mary Ann Street (Reference Nos. 1 and 14 in Clearance Order) be excluded from Clearance Order and from Clearance Area. Minister of Health suggested that No. 28, Mary Ann Street should be dealt with under Section 20 of Housing Act, 1930 (Closing Order on part of a building) as cellar wash-house occupying a portion of ground floor and basement of that dwelling house was part of adjoining dwelling house No. 40, Millicent Street, which was outside Clearance Area.	Number of Houses excluded from Confirming Clearance Order and from Clearance Area	Number of Houses excluded from Confirming Clearance Order and from Clearance Area, but undertaking to be given to use for business purposes only	Number of other Buildings excluded from Confirming Clearance Order and from Clearance Area	Number of Houses to be demolished	Number of other Buildings to be demolished	Total number of Houses and other Buildings to be demolished	Number of persons to be displaced and in respect of whom Exchequer Grant to be made under Section 28 (2) of Housing Act, 1930
8	Nos. 1, 2, 3, 4 and 35, Little Frederick Street, and Nos. 22, 23, 24, 25, 26, 27, 28, 35 and 36, Mary Ann Street.	13	1 (Shop—No. 1, Little Frederick Street	14	Clearance Order confirmed subject to modification that No. 1, Little Frederick Street, and No. 28, Mary Ann Street (Reference Nos. 1 and 14 in Clearance Order) be excluded from Clearance Order and from Clearance Area. Minister of Health suggested that No. 28, Mary Ann Street should be dealt with under Section 20 of Housing Act, 1930 (Closing Order on part of a building) as cellar wash-house occupying a portion of ground floor and basement of that dwelling house was part of adjoining dwelling house No. 40, Millicent Street, which was outside Clearance Area.	1	—	1 shop	12	1	12	24
9	Nos. 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 26, 27, and 28, Little Frederick Street; Nos. 18 and 19, David Street, and Nos. 1, 2, 4 and 5, Love Lane Court.	20	1 (Shop—No. 22, Little Frederick Street	21	Clearance Order confirmed subject to following modifications :— (a) No. 22, Little Frederick Street (Reference No. 9 in Clearance Order) be excluded from Clearance Order and from Clearance Area; (b) Nos. 13 and 14, Little Frederick Street (Reference Nos. 1 and 2 in Clearance Order) be excluded from Clearance Order and from Clearance Area as being properties belonging to the Corporation which were not acquired in such a manner as to bring them within the terms of Section 4 of the Housing Act, 1930.	2	—	1 shop	18	—	18	50

Number of Clearance Order	Buildings included in Clearance Order made by Council	Number of Houses included in Clearance Order made by Council	Number of other Buildings in Clearance Order made by Council	Total Number of Houses and other Buildings included in Clearance Order made by Council	Decision of Minister of Health.	Number of Houses excluded from Confirming Clearance Order and from Clearance Area	Number of Houses excluded from Confirming Clearance Order and from Clearance Area, but undertaking to be given to use for business purposes only.	Number of other Buildings excluded from Confirming Clearance Order and from Clearance Area	Number of Houses to be demolished	Number of other Buildings to be demolished	Total number of Houses and other Buildings to be demolished	Number of persons to be displaced and in respect of whom Exchequer Grant to be made under Section 26 (2) of Housing Act, 1930
10	Nos. 4, 5, 6, 7, 8, 9, 12, 12a, 13, 14, 15, 16 and 17, Love Lane, and Nos. 1 and 2, Peter's Court.	15	—	15	Clearance Order confirmed subject to modification that Nos. 12 and 12a, Love Lane (Reference Nos. 7 and 8 in Clearance Order) be excluded from Clearance Order and from Clearance Area on the undertaking offered by the owner to discontinue the use of the properties as dwelling-houses and to convert them for use as business premises only.	—	2	—	13	—	13	74
11	Nos. 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57 and 58, Mary Ann Street.	16	—	16	Clearance Order confirmed.	—	—	—	16	—	16	99
12	Nos. 20, 21, 22, 23, 24, 25, 26, 27, 28 and 29, Union Street.	10	—	10	Clearance Order confirmed subject to modification that Nos. 23, 24, 25, 26, 27, 28 and 29, Union Street (Reference Nos. 4, 5, 6, 7, 8, 9 and 10 in Clearance Order) be excluded from Clearance Order and from Clearance Area on the undertakings offered to convert these properties for use as business premises only and not again to use them for the purposes of human habitation.	—	7	—	3	—	3	11

Number of Clearance Order	Buildings included in Clearance Order made by Council	Number of Houses included in Clearance Order made by Council	Number of other Buildings included in Clearance Order made by Council	Total Number of Houses and other Buildings included in Clearance Order made by Council	Decision of Minister of Health.	Number of Houses excluded from Confirming Clearance Order and from Clearance Area						Total number of Houses and other Buildings to be demolished	Number of persons to be displaced and in respect of whom Exchequer Grant to be made under Section 26 (2) of Housing Act, 1930
						Number of Houses excluded from Confirming Clearance Order and from Clearance Area	Number of Houses excluded from Confirming Clearance Order and from Clearance Area, but undertaking to be given to use for business purposes only	Number of other Buildings excluded from Confirming Clearance Order and from Clearance Area	Number of Houses to be demolished	Number of other Buildings to be demolished			
13	Nos. 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, and 15, Hills Terrace.	11	2 (Warehouses—Nos. 7 and 10, Hills Terrace).	13	Clearance Order confirmed subject to following modifications (a) Nos. 9 and 10, Hills Terrace (Reference No. 7 in Clearance Order) be excluded from Clearance Order and from Clearance Area, (b) the W.C. adjoining the yard appurtenant to No. 3, Hills Terrace (Reference No. 1 in Clearance Order) be excluded from Clearance Order and from Clearance Area on the technical ground that it cannot be demolished without interference with a building outside the Clearance Area.	—	—	2 ware-houses	11	—	11	47	
14	Premises formerly known as No. 1 and Nos. 2, 3, 4, 5, 6, 7, 8, and 9, Lewis Court.	8	1 (Workshop—Premises formerly known as No. 1, Lewis Court.	9	Clearance Order confirmed.	—	—	—	8	1	9	41	
15	Nos. 1, 2, 3, 4, and 5, Vokes Row, and No. 3, Bridge Street, Llandaff.	6	—	6	Clearance Order confirmed.	—	—	—	6	—	6	18	

Decision of Minister of Health											
Number of Clearance Orders	Buildings included in Clearance Order made by Council	Number of Houses included in Clearance Order made by Council	Number of other Buildings included in Clearance Order made by Council	Total number of Houses and other Buildings included in Clearance Order made by Council	Clearance Order confirmed subject to following modifications :— (a) Nos. 39 and 40, Mary Ann Street (Reference Nos. 3 and 4 in Clearance Order) be excluded from Clearance Order and from Clearance Area ; (b) Nos. 37 and 38, Mary Ann Street (Reference Nos. 1 and 2 in Clearance Order) be excluded from Clearance Order and from Clearance Area on the undertaking offered by the owner to convert the premises for use as business premises only and not again to use them for the purposes of human habitation.	Number of Houses excluded from Confirming Clearance Order and from Clearance Area	Number of Houses excluded from Confirming Clearance Order and from Clearance Area	Number of other Buildings excluded from Confirming Clearance Order and from Clearance Area	Number of Houses to be demolished	Number of other Buildings to be demolished	Total number of Houses and other Buildings to be demolished
16	Nos. 37, 38, 39, 40, 41 and 42, Mary Ann Street.	5	1 (Warehouse—No. 40, Mary Ann Street)	6	Clearance Order confirmed subject to following modifications :— (a) Nos. 39 and 40, Mary Ann Street (Reference Nos. 3 and 4 in Clearance Order) be excluded from Clearance Order and from Clearance Area ; (b) Nos. 37 and 38, Mary Ann Street (Reference Nos. 1 and 2 in Clearance Order) be excluded from Clearance Order and from Clearance Area on the undertaking offered by the owner to convert the premises for use as business premises only and not again to use them for the purposes of human habitation.	1	2	1	2	—	2
								ware-house			
17	Nos. 7, 8, 9, 10, 11 and 29, Little Frederick Street.	6	—	6	Clearance Order confirmed.	—	—	—	6	—	6
Totals	—	151	7	158	—	4	11	6	136	1	137
											548

SUMMARY.

Number of Clearance Orders made by Council	17
Number of Houses included in Clearance Orders made by Council	151
Number of other Buildings included in Clearance Orders made by Council	7
Total number of Houses and other Buildings included in Clearance Orders made by Council	158
Number of Houses excluded from Confirming Clearance Orders of Minister of Health	4
Number of Houses excluded from Confirming Clearance Orders of Minister of Health but undertakings to be given to Council to use for business purposes only	11
Number of other Buildings (exclusive of water closets) excluded from Confirming Clearance Orders of Minister of Health	6
Number of water closets excluded from Confirming Clearance Orders of Minister of Health	2
Number of Houses to be demolished	136
Number of other Buildings (exclusive of water closets) to be demolished	1
Total number of Houses and other Buildings (exclusive of water closets) to be demolished	137
Number of persons to be displaced and in respect of whom Exchequer Grant to be made under Section 26 (2) of Housing Act, 1930	548
Number of families to be displaced	145
Number of Houses required to rehouse persons to be displaced	102
	23
	4 bedrooms
	2 bedrooms
	3 bedrooms
	4 bedrooms
	56

Fifty-three individual unfit houses, which were outside the clearance areas, were dealt with as follows :—

Demolition Orders	15
Undertakings accepted to discontinue the use of the houses as dwellings	25
Conversion of two houses into one house	13*
Total	53

The rehousing of the families displaced is being proceeded with. A difficulty met with was the problem of rehousing 14 coloured families who were occupying condemned houses. The Council, however, have now decided to build flats in the Bute Street area, which will primarily be for these and other coloured families who are living under overcrowded conditions.

The number of houses repaired under Section 17 of the Housing Act, 1930, was 642, of which 603 were dealt with by informal notices and 39 by formal notices. In two instances the repairs were executed by the Council in default of the owners.

Council Housing Estates.—The duties in connection with the supervision of Council houses are now delegated to one of the assistant sanitary inspectors. Apart from carrying out periodical inspections of all houses on the estates, he is concerned with the inspection of vacant houses to ascertain their condition before reletting, the disinfestation of verminous houses, inquiries regarding applications for transfer to other houses on the estates and the suitability of prospective Council tenants. The percentage of verminous houses is still far too high, although there is evidence that the tenants are slowly beginning to realise that a bug-infested house usually signifies neglect. The increase in the number of persons who voluntarily report verminous conditions and ask for advice on the subject shows that there is a growing desire, even among the poorer families, to live under conditions which are not associated with dirt and squalor. This is manifest in the genuine attempts made by practically all the tenants re-housed under the slum clearance scheme to keep their houses in a creditable condition.

The following table gives particulars of work carried out by the department in connection with the inspection of vacant houses on the Council housing estates each year since 1930 :—

Year	Vacant Houses inspected	Vacant Houses found to be verminous	Percentage found to be verminous
1930	321	98	30.5
1931	347	93	26.8
1932	419	91	21.7
1933	435	89	20.5
1934	452	110	24.3
1935	445	110	24.7

Verminous Houses.—The Council are not carrying out disinfestation of houses and effects by hydrocyanic acid gas, owing to its dangerous properties. The stripping of woodwork and the application of the blow-lamp flame, followed by spraying and fumigation with sulphur gas, have proved effective in almost every instance. Before demolition, all condemned houses are treated in this way and any verminous effects belonging

* Including one attached to a house in respect of which a representation was not made.

to the tenants are disinfested. A considerable amount of propaganda work amongst the tenants is undertaken before rehousing is carried out, and their desire to co-operate, by destroying pictures and carrying out disinfestation themselves, will probably have a more lasting effect than the introduction of expensive measures which place the whole obligation for disinfestation on the Council.

The department now supplies vermicides and sulphur candles at cost price and loans sprays free of charge where disinfestation measures have to be undertaken by tenants.

Houses-let-in-Lodgings —The number of houses on the register is 27. Many other houses come within this category and will have to be dealt with when the pressure of work brought about by housing and overcrowding is reduced. Some of the houses now occupied by several families are structurally unsuitable for the purpose, and it is hoped that many of them will cease to be so used when alternative accommodation is provided for all overcrowded families in the city.

XVIII.—GENERAL SANITATION.

Statements as to the nature and extent of the work done during 1935 in connection with general sanitary inspection are given below. A summary of legal proceedings and particulars with regard to disinfection, baths at the Cleansing Station and bodies taken to the Public Mortuary are also included.

GENERAL SANITARY INSPECTION.

Complaints of nuisances received 2,238

	Inspections or Visits	Intimation Notices		Statutory Notices	
		Served	Complied with	Served	Complied with
House inspections for nuisances	5,854	1,919	1,838	312	299
" " in connection with in- fectious diseases	1,251	—	—	—	—
" " for vermin	291	51	51	—	—
" " for other conditions	443	—	—	—	—
Houses inspected and recorded	526	—	—	—	—
Re-inspections of houses	11,731	—	—	—	—
Owners and contractors interviewed	1,555	—	—	—	—
Knackers' yards	67	—	—	—	—
Slaughter-houses	646	—	—	—	—
Milkshops, etc.	1,942	17	5	—	—
Cowsheds	252	1	—	—	—
Offensive trades	78	3	1	—	—
Workshops—					
Bakehouses	306	25	19	—	—
Bootmakers	75	—	2	—	—
Dressmakers and milliners	37	1	3	—	—
Laundries	58	4	1	—	—
Tailors	81	6	8	—	—
Miscellaneous	355	28	13	—	—
Factories—					
Bakehouses	206	19	12	—	—
Bootmakers	28	1	1	—	—
Laundries	24	3	2	—	—
Tailors	33	—	1	—	—
Dressmakers and milliners	4	1	2	—	—
Miscellaneous	636	19	8	—	—
Workplaces	191	5	8	—	—
Tailors' outworkers	13	—	—	—	—
Seamen's lodging houses (day)	1,271	204	152	—	—
" " " (night)	129	—	—	—	—
Common lodging houses (day)	56	8	4	—	—
" " " (night)	3	—	—	—	—
Houses-let-in-lodgings	50	2	1	—	—
Tents, vans, sheds and similar structures	176	3	3	—	—
Amusement places	166	17	12	—	—
Public houses	36	—	—	—	—
Schools	86	—	—	—	—
Swimming baths	32	—	—	—	—
Water supplies	3	—	—	—	—
Water courses	35	—	—	—	—
Refuse tips	40	—	—	—	—
Accumulations	282	7	6	—	—
Sewers	42	1	1	—	—
Drains	2,720	45	42	—	—
Public urinals	171	—	—	—	—
Cesspools	4	—	—	—	—
Back lanes	279	7	6	—	—
Rat infestation	715	36	23	—	—
Premises where swine or other animals are kept	185	9	8	—	—
Marine store hawkers	21	—	—	—	—
Visits not classified	3,935	—	—	—	—

NUISANCES ABATED, REPAIRS EXECUTED, ETC.

Houses :—

Walls repaired	294
Outside plastering repaired	390
Inside plastering repaired	533
Damp-proof courses inserted	10
Floors renewed or repaired	371
Floors ventilated	54
Roofs renewed or repaired	676
Shutes, downpipes or gutters renewed or repaired	562
Chimneys repaired	142
Ceilings repaired	188
Doors and frames repaired	193
Lighting and ventilation of rooms improved	14
Window sashes or frames renewed or repaired	462
Window cords renewed	433
Staircases repaired	37
Grates or ovens repaired or renewed	209
Boilers provided or repaired	80
Food stores provided or improved	5
Washhouses provided or improved	48
Out-buildings repaired	22
Walls or ceilings cleansed or redecorated	69
Bedding cleansed or destroyed	169
Rooms treated for vermin	232
Overcrowding abated	40
Yard paving relaid or repaired	393
Nuisances from animals abated	8
Accumulations removed	52
Ash-bins provided	7
Water supply provided	17
Water taps or pipes repaired	17
Water samples taken for analysis	19
Miscellaneous repairs and nuisances abated	206

Drainage :—

Drains tested (smoke)	189
„ „ (chemical)	529
New drains constructed	45
Drains reconstructed	115
Drains repaired	492
Drains under houses abolished	4
Drains cleansed	278
Drains cleansed or repaired by Corporation in default of owners	3
Inspection or intercepting chambers provided or repaired	78
Intercepting traps fixed	9
Soilpipes or ventilating shafts fixed or repaired	49
Rain-water pipes disconnected	4
Gullies fixed	121
Troughs provided	298
Troughs trapped or waste pipes repaired	74
Bath waste pipes trapped or repaired	11
Lavatory basins trapped or waste pipes repaired	11
Additional w.c.'s provided	40
W.c.'s reconstructed	114

NUISANCES ABATED, REPAIRS EXECUTED, ETC.—(contd.)

Lighting and ventilation of w.c.'s improved	....	....	22
New pans and traps fixed	....	....	1,443
W.c. pans cleansed	....	....	29
Flushing apparatus provided	....	....	1,346
Flushing apparatus repaired	....	....	53
Miscellaneous repairs	....	....	125
Cesspools :—			
Constructed	....	....	1
Abolished and house connected to sewer	....	....	2
Other repairs	....	....	2
Seamen's Lodging Houses :—			
Limewashing or cleansing carried out	....	....	76
Bedding renewed	....	....	30
Verminous rooms treated	....	....	77
Bedsteads cleansed or repaired	....	....	324
Accumulations removed	....	....	4
Washing accommodation provided	....	....	2
Other repairs	....	....	27
W.c.'s repaired	....	....	5
Common Lodging Houses :—			
Limewashing or cleansing carried out	....	....	4
Bedsteads cleansed or repaired	....	....	1
Verminous rooms treated	....	....	1
Other repairs	....	....	2
Urinals :—			
Reconstructed	....	....	1
Additional urinals provided	....	....	6
Walls repaired or made impervious	....	....	3
Flushing apparatus fixed or repaired	....	....	4
Floors repaired	....	....	1
Other repairs	....	....	2
Earth or Pail Closets :—			
Abolished	....	....	3
Tents, Vans or Sheds :—			
Removed	....	....	8
Amusement Places :—			
Atmospheric observations	....	....	15
W.c.'s repaired	....	....	1
Additional w.c. accommodation provided	....	....	2
Ventilation improved	....	....	5
Cleanliness improved	....	....	4
Other repairs	....	....	8

NUISANCES ABATED, REPAIRS EXECUTED, ETC.—(contd.)

Dairies, Cowsheds and Milkshops :—

New cowshed constructed	....	....	....	1
New dairies constructed	....	....	....	4
Existing dairies improved	....	....	....	8
Existing cowsheds improved	....	....	....	2
Paving repaired	....	....	....	4
Lighting or ventilation improved	....	....	....	3
Limewashing or cleansing carried out	....	....	....	42
Sterilisers fixed	....	....	....	6
Accumulations of manure removed	....	....	....	9
Other repairs	....	....	....	6

Ice Cream Premises :—

Limewashing or cleansing carried out	....	....	....	21
Ash-bins provided	....	....	....	1
Accumulations removed	....	....	....	1
Premises improved	....	....	....	5
Other repairs	....	....	....	2
Use of unsuitable premises discontinued	....	....	....	3

Food Shops, Kitchens, etc. :—

Accumulations removed	....	....	....	1
Cleanliness improved	....	....	....	21
Ash-bins provided	....	....	....	13
Other repairs	....	....	....	9
Washing-up sinks fixed	....	....	....	5
Lighting or ventilation improved	....	....	....	1
Water supply provided	....	....	....	4

Fried Fish Shops :—

New ranges fitted	....	....	....	7
Ash-bins provided	....	....	....	5
Cleansing carried out	....	....	....	15
Storage accommodation provided or improved	....	....	....	6
Drainage improved	....	....	....	3
Accumulations removed	....	....	....	4
Unsuitable premises discontinued	....	....	....	2
Lighting and ventilation improved	....	....	....	5
Other repairs	6

Houses-let-in-lodgings :—

Limewashing or cleansing carried out	1
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Offensive Trades :—

Floors or walls repaired	1
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Knackers' Yards :—

Accumulations removed	3
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NUISANCES ABATED, REPAIRS EXECUTED, ETC.—(contd.)

Stables :—

Accumulations of manure removed	11
Paving repaired or renewed	....	....	5
Manure receptacles provided or repaired	....	....	4
Limewashing carried out	....	....	6
Drains provided	....	....	2

Back Lanes :—

Accumulations removed	11
Surfaces repaired	2

Miscellaneous repairs or nuisances abated	4
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Common Lodging Houses.—There are seven registered Common Lodging Houses, two of them being large houses and the remainder of the small type. The Salvation Army Hostel is a welcome addition to the houses of this class and is a model of how such houses should be conducted.

Seamen's Lodging Houses.—Owing to depression in the shipping industry, the number of licensed seamen's lodging houses is declining, and at present there are only 100 houses registered for the lodging of seamen. Seamen are still endeavouring to evade the byelaws, by taking apartments in private houses, and Police Court proceedings for these offences are fairly frequent. The Health Committee now consider that the number of houses is more than sufficient to meet requirements, and new licences are only issued in exceptional circumstances. Regular day and night inspections of all licensed houses are made and the general conduct of the houses has been good.

Offensive Trades.—The following is a list of offensive trades established in the city :—

Artificial Manure Manufacturers	....	....	....	2
Fat Melters	....	....	....	2
Tripe Boilers	....	....	....	22
Rag and Bone Dealers	....	....	....	21
Gut Scrapers	....	....	....	2

The premises are kept under regular observation. Fortunately, most of those which are liable to cause effluvium nuisances are situated in a remote part of the city, some distance from dwelling-houses.

Choked and Defective Drains.—During the year action was taken under Section 98 of the Cardiff Corporation Act, 1930, in 3 cases in which the owners or occupiers failed to carry out the work, and no difficulty was experienced in recovering the costs incurred.

Flushing Cisterns.—During the year, 1,346 flushing cisterns were installed to hand-flushed closets, making a total of 9,969 since the work was commenced in February, 1931.

Conservancy System Closets.—The numbers of closets remaining on the conservancy system at the end of the year were as follows :—

Earth closets	....	....	....	....	6
Privies	....	....	....	....	80
Total	....	....	....	....	86

As a result of action taken under section 100 of the Cardiff Corporation Act, 1930, the number of privies and earth closets was reduced by 4 during 1935.

Cesspools.—There are 46 cesspools in the city receiving drainage from dwelling-houses and 3 cesspools in connection with factories.

Swimming Baths.—There is one covered swimming bath in the city, which is equipped with a modern continuous filtration plant. Open-air bathing is obtainable at two swimming baths and also at Roath Park Lake. One of the open-air baths is fitted with a continuous filtration plant and the other is to be similarly equipped in 1936. The trouble from a bathers' rash caused by cercariae, which has been discussed in previous reports, did not recur during the year.

Rats.—Numerous complaints of rat infestation have been received from occupiers of houses in the suburbs. This is often caused by carelessness on the part of the occupiers themselves, who do not seem to realise that the dumping of garden refuse in woods and fields adjoining their houses forms an ideal breeding ground for rats. Again, rats are often attracted to houses by occupiers who leave large quantities of food on their lawns for the purpose of feeding birds.

The following is a summary of the work of the department in connection with the destruction of rats :—

Amount of poison sold (tins)....	....	....	....	141
Number of baits laid in public sewers....	....	....	....	5,675
Number of baits eaten ...	....	....	....	4,794
Number of baits laid elsewhere	....	....	....	35,529
Number of baits eaten ....	....	....	....	29,769
Total number of baits laid ....	....	....	....	41,204
Total number of baits eaten ...	....	....	....	34,563

During the year, 1,008 live rats and 987 dead rats from premises in the city were submitted to the Department of Zoology, National Museum of Wales, for identification and for examination of their parasitic fleas, for comparison with those submitted from ships and the docks.

Factories, Workshops and Workplaces.—Details of the sanitary inspection of factories, workshops and workplaces under the Factory and Workshop Act, 1901, are given in the following tables :—

1.—INSPECTION OF FACTORIES, WORKSHOPS AND WORKPLACES.

PREMISES	Number of		
	Inspections	Written Notices	Prosecutions
Factories (including Factory Laundries)	931	43	—
Workshops (including Workshop Laundries)	912	64	—
Workplaces (other than Outworkers' premises included in Part 3 of this Report)	191	5	—
Totals	2,034	112	—

2.—DEFECTS FOUND IN FACTORIES, WORKSHOPS AND WORKPLACES.

PARTICULARS	Number of Defects	
	Found	Remedied
Nuisances under the Public Health Acts :—		
Want of Cleanliness	90	82
Want of Ventilation	14	7
Overcrowding	—	—
Other Nuisances	19	17
Sanitary accommodation	5	5
Breach of special sanitary requirements for bakehouses (Sec. 97 to 100)	18	13
	4	—
Totals	150	124

3.—HOME WORK.

NATURE OF WORK	OUTWORKERS' LISTS, SECTION 107							OUTWORK IN UNWHOLESOME PREMISES, SECTION 108		OUTWORK IN INFECTED PREMISES, SECTIONS 109, 110	
	Lists received from Employers						Notices served on Occupiers as to keeping or sending lists	In- stances	Notices served	In- stances	Orders made (S.110)
	Sending twice in the year			Sending once in the year							
	Lists	Outworkers		Lists	Outworkers						
Con- tractors		Work- men	Con- tractors		Work- men						
Wearing Apparel—											
(1) Making, etc.	24	—	128	3	—	18	48	—	—	—	—
(2) Cleaning and washing	—	—	—	—	—	—	—	—	—	—	—

4.—REGISTERED WORKSHOPS.

Workshops on the Register (S. 131) at the end of the Year	Number
Bakers	93
Bootmakers	156
Dressmakers and milliners....	58
Laundries	17
Tailors	132
Miscellaneous	339
Total Number of Workshops on Register	795

5.—OTHER MATTERS.

Class	Number
Matters notified to H.M. Inspector of Factories :—	
Failure to affix Abstract of the Factory and Workshop Act (Sec. 133)	—
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts but not under the Factory Act :—	
Notified by H.M. Inspector	17
Reports (of action taken) sent to H.M. Inspector	14
Other (Notices of Occupation of Workshops received from H.M. Inspector)	21
Underground Bakehouses in use at the end of the year	—

Shops.—The following is a summary of the work done under the Shops Acts and in connection with the sanitary inspection of shops :—

Closing Orders in operation	15
Observations of shops under Closing Orders	1,769
Observations of shops as to weekly half-holidays	3,317
Inspections of shops	2,899
Infringements of Shops Acts.....	120
Notices requiring sanitary defects to be remedied :—	
Served	76
Complied with	45

As anticipated, the Shops Act, 1934, has thrown a large amount of additional work on the department. An inspection of all shops in the city is proceeding, but it will be some time before this is complete. Legal proceedings for the employment of young persons in excess of the permitted number of hours have been taken in several instances, but this entails a considerable amount of time, as observations have to be taken of the hours of employment and the meal times of the employee concerned over a period of a week.

The sanitary provisions relating to lighting, ventilation, heating, sanitary accommodation and washing facilities have to be exercised with discretion. The several arcades in the town offer a particularly difficult problem.

The provisions relating to heating have been wrongly interpreted by shopkeepers dealing in perishable articles, the term "suitable and sufficient" being considered by them to mean that such shops are exempt from the provision of heating facilities. The Act lays down no exemptions in this respect, and it has been necessary to point out to certain traders that heating arrangements must be installed and that there should be no difficulty in obtaining an appliance giving a localised heat which will ensure comfort to the shop assistant without having any deleterious effect on the commodities sold. It should also be remembered that the temperatures aimed at in such shops during the winter months are far below the maximum temperatures that have to be contended with during the normal summer period.

Legal Proceedings.—The following is a summary of legal proceedings taken during the year in connection with general sanitary administration :—

Acts, etc., under which proceedings were taken	Number	Fined	Cautioned	To pay cost only	Dismissed	With-drawn	Amount of Fines and Costs
Shops Acts	120	67	37	15	—	1	£ s. d. 28 2 0
Public Health Act, 1875 (Sec. 94)	1	1	—	—	—	—	2 0 0
Housing Act, 1930	9	1	—	7	—	1	2 3 6
Cardiff Corporation Act, 1930 (Sec. 101)	11	—	—	11	—	—	1 13 0
Merchant Shipping Act, 1894 (Sec. 214, Sub-sec. 5)	20	14	3	1	—	2	12 19 0
Totals	161	83	40	34	—	4	£46 17 6

Disinfection.—Disinfection was carried out at 364 houses during the year, and 6,590 articles of bedding, clothing, etc., were removed to and disinfected at the Disinfection Station ; 235 infected articles were destroyed by arrangement with or at the request of the owners.

Cleansing Station.—The total number of baths for scabies, pediculosis, etc., undertaken at the Cleansing Station was 536.

Public Mortuary.—Seventy-two bodies (59 males, 13 females) were taken to the Public Mortuary and 43 post-mortem examinations were performed there.

XIX.—ATMOSPHERIC POLLUTION.

This section of the report is compiled from data supplied by Mr. J. H. Sugden, M.Sc., F.I.C., of the Cardiff and County Public Health Laboratory, under whose direction the analyses and measurements are undertaken.

Deposit Gauge.—Atmospheric pollution observations made with a deposit gauge in Cardiff during 1935 are given in the following table :—

Month	Rain-fall (mm)	Grammes per Square Dekametre (Metric Tons per Hundred Square Kilometres)								
		Insoluble Matter			Soluble Matter		Total Solids	Included in Soluble Matter		
		Tar	Carbonaceous other than Tar	Ash	Loss on Ignition	Ash		Sulphates (SO ₃)	Chlorine (Cl.)	Ammonia (NH ₃)
January ..	16	4	76	153	54	160	447	52	37	3
February ..	108	4	97	152	141	395	789	106	122	3
March ..	23	4	130	225	61	152	572	45	31	4
April ..	135	4	69	126	85	217	501	73	53	3
May	22	5	95	178	37	59	374	24	8	1
June	102	4	79	182	98	182	545	61	34	3
July	10	4	53	112	47	63	279	28	7	1
August	81	5	85	144	73	121	428	48	15	1
September ..	183	4	84	157	144	625	1,014	93	261	1
October	150	4	54	124	134	390	706	88	134	1
November ..	143	5	90	136	90	285	606	89	64	1
December ..	113	8	109	180	73	305	675	92	80	3
Totals	1,086	55	1,021	1,869	1,037	2,954	6,936	799	846	25
Mean	90	5	85	156	86	246	578	67	70	2

Sulphur Pollution.—Since January, 1935, the amount of atmospheric sulphur dioxide has been measured by the lead peroxide method in Splott—a municipal ward in which iron and steel works are situated—as well as at the City Hall. The results, together with the calculated approximate volumes per million of air, are tabulated in the following table :—

Month	Direction of Wind	Milligrams SO ₂ per 100 sq. cm. per day			Calculated volume SO ₂ per million of air	
		Splott	City Hall	Difference	Splott	City Hall
January	To works	2·07	1·59	0·48	0·059	0·044
February	From works	1·76	1·50	0·46	0·049	0·036
March	To works	1·83	1·16	0·67	0·051	0·032
April	—	1·59	0·90	0·69	0·044	0·025
May	To works	1·24	0·85	0·39	0·034	0·023
June	—	1·28	0·61	0·67	0·036	0·017
July	To works	1·14	0·48	0·66	0·032	0·013
August	—	1·33	0·62	0·71	0·037	0·017
September	From works	1·67	0·66	1·01	0·046	0·018
October	—	—	0·70	—	—	0·019
November	To works	2·14	1·32	0·82	0·060	0·037
December	To works	2·59	1·86	0·73	0·072	0·052

It will be observed that the figures were very low in the summer, showing an increase in the winter months, as would be expected with the greater amount of domestic smoke.

The figures are not abnormally high for either Splott or City Hall. Certainly the December figure of 2·59 for Splott is the highest for the year, but this is only equivalent to 0·072 of SO₂ per million by volume, and the slight fogs would have an influence. From published results, a figure below 0·10 may be considered as satisfactory for any residential area.

The column of differences shows no excessive variations, although there was a fairly high difference in September with the prevailing winds from the works.

The conclusions are as follows :—

- The fall from winter to summer and the rise from summer to winter are very similar at both stations and are presumably due chiefly to domestic smoke.
- The excess of SO₂ at Splott over that at the City Hall keeps at a fairly constant level and is not, under present industrial conditions, greatly affected by varying winds.
- It may be that there is a counterbalancing effect between SO₂ carried from the more populated area when the wind is towards the works and SO₂ from the works when the wind is in that direction.

Ultra-violet Radiation.—The mean daily units of ultra-violet radiation, as measured by the acetone methylene blue method, in Cardiff during 1935 were as follows :—

Month	Mean Daily Radiation Units	
	Penylan (Suburban)	City Hall (Central)
January	0·20	0·20
February	0·37	0·34
March	0·48	0·47
April	1·15	1·10
May	1·93	1·87
June	2·10	2·05
July	2·27	2·25
August	1·90	1·89
September	1·03	1·03
October	0·45	0·45
November	0·23	0·23
December	0·26	0·26

XX.—METEOROLOGICAL OBSERVATIONS.

The Climatological Station, which is situated at Penylan, Cardiff, is under the control of the Medical Officer of Health. The geographical position of the Station is Latitude 51° 30'N., Longitude 3° 10'W., and the height of the Station above mean sea level is 203 feet. Observations are made daily at 9.0 a.m. and 9.0 p.m. (G.M.T.). Summaries of the observations made during 1935 are given in the following tables :—

BAROMETRIC PRESSURE AND RELATIVE HUMIDITY.

Month	Attached Thermo- meter (Mean)	Mean Barometric Pressure*		Hygrometer*		
		Uncorrected	Reduced to Mean Sea Level and Temp. 32° F.	Dry Bulb (Mean)	Wet Bulb (Mean)	Mean Relative Humidity
	°F.	Inches.	Inches.	°F.	°F.	%
January	50	30.114	30.317	41.6	39.4	84
February	49	29.541	29.741	42.7	41.2	87
March	50	29.970	30.172	42.8	39.7	77
April	55	29.663	29.848	46.8	44.1	81
May	64	29.941	30.107	50.5	46.6	74
June	68	29.765	29.902	58.6	55.7	83
July	76	30.035	30.153	63.2	59.2	75
August	73	29.911	30.042	61.4	58.8	84
September	65	29.727	29.882	56.5	54.1	86
October	61	29.723	30.067	50.1	48.1	86
November	57	29.502	29.680	44.2	42.9	88
December	51	29.455	29.649	38.8	37.2	88
	60	29.779	29.963	49.8	47.2	82

* From observations at 9 a.m. and 9 p.m. (G.M.T.)

TEMPERATURE.

Month	Absolute Maximum	Absolute Minimum	Mean of Maximum	Mean of Minimum	Mean Temperature	Difference from Average (46 years)
	°F.	°F.	°F.	°F.	°F.	°F.
January	55	30	45.7	38.6	42.3	+ 2.2
February	57	28	48.4	38.5	43.5	+ 3.3
March	61	27	49.1	38.2	43.7	+ 1.2
April	61	33	53.5	41.6	47.6	+ 1.2
May	75	31	58.9	43.2	51.1	— 1.7
June	83	44	65.5	53.3	59.4	+ 2.0
July	84	49	71.8	56.2	64.0	+ 3.3
August	82	44	70.8	57.2	64.1	+ 3.8
September	69	43	62.8	50.6	56.7	+ 0.2
October	61	33	53.0	44.9	48.9	— 1.4
November	59	32	49.9	40.1	45.0	+ 0.8
December	51	22	43.4	36.0	39.7	— 1.4
	84	22	56.1	44.9	50.5	+ 1.2

TERRESTRIAL RADIATION, UNDERGROUND TEMPERATURE, SOLAR RADIATION
AND SUNSHINE.

Month	Temperature				Bright Sunshine	
	Grass Minimum (Mean)	Underground (Mean)		Solar Maximum (Mean)	Total Duration	Difference from Average (27 years)
		1 ft.	4 ft.			
	°F.	°F.	°F.	°F.	Hours	Hours
January	34·3	42·9	47·1	70·4	59·4	+ 5·8
February	35·3	42·7	45·2	79·2	67·7	— 8·8
March	33·9	43·3	44·3	91·8	118·4	— 1·5
April	36·8	48·3	47·7	100·6	160·9	— 6·3
May	36·2	52·6	50·8	114·8	200·7	— 1·7
June	45·8	60·0	54·6	123·4	183·1	— 39·7
July	45·7	65·5	60·1	128·5	243·5	+ 33·8
August	42·6	64·6	61·6	123·4	195·2	+ 9·5
September	45·1	59·0	59·3	112·2	138·0	— 9·7
October	41·5	53·2	55·9	92·1	96·8	— 9·8
November	35·4	47·5	51·6	78·9	54·5	— 12·4
December	31·9	40·5	46·5	66·9	53·1	+ 4·2
	38·7	51·7	52·0	98·5	1,571·3*	— 36·6

* = 35 % of possible duration and a daily average of 4·31 hours.

RAINFALL.

Month	Total	Difference from Average (46 years)	Greatest Fall in 24 hours*		Number of Rain-days (0·01 inch or more)	Duration
			Amount	Day		
	Inches	Inches	Inches			Hours
January	0·84	— 3·16	0·25	11th	7	19·50
February	4·09	+ 1·15	0·75	20th	22	79·00
March	1·00	— 2·00	0·40	1st	10	25·50
April	5·58	+ 2·96	1·31	15th	19	72·50
May	0·78	— 1·87	0·20	18th	11	12·25
June	4·98	+ 2·43	1·05	25th	19	60·25
July	0·66	— 2·25	0·34	19th	7	11·00
August	2·21	— 1·91	1·11	30th	8	32·25
September	8·48	+ 5·32	1·30	21st	24	90·00
October	6·03	+ 1·18	1·16	9th	25	101·25
November	6·34	+ 2·64	0·98	14th	22	88·00
December	3·86	— 0·82	0·51	30th	16	64·35
	44·85	+ 3·67	1·31	15th April.	190	655·85

* 24 hours ended 9 a.m. (G.M.T.) next day.

PORT SANITARY SERVICE.

I.—SHIPPING ENTERING THE PORT.

The following table (compiled from information kindly supplied by H.M. Collector of Customs) shows the annual number of arrivals and tonnage of vessels since 1926 :—

Year	NUMBER OF ARRIVALS			TONNAGE		
	From Foreign	Coastwise*	Totals	From Foreign	Coastwise*	Totals
1926	2,204	3,517	5,721	2,208,168	1,218,551	3,426,719
1927	3,451	5,847	9,298	3,593,633	3,013,405	6,607,038
1928	3,205	4,530	7,735	3,389,525	1,695,890	5,085,415
1929	3,531	4,601	8,132	3,652,185	1,891,215	5,543,400
1930	3,210	4,368	7,578	3,182,124	1,820,183	5,002,307
1931	2,433	4,271	6,704	2,467,542	1,689,505	4,157,047
1932	2,089	4,401	6,490	2,337,218	1,702,412	4,039,630
1933	1,903	4,388	6,291	2,017,207	1,778,635	3,795,842
1934	1,791	4,567	6,358	1,891,385	1,858,569	3,749,954
1935	1,804	4,137	5,941½	1,935,007	1,939,521	3,874,528

The number and tonnage of vessels entering the port (which includes Penarth) inspected by officers of the Port Sanitary Authority during 1935 are set out below :—

Ministry of Health Table A.

		Number	Tonnage	Number Inspected by		Number reported defective	Number of Vessels on which defects were remedied	Number of Vessels reported as having or having had during the voyage infectious disease on board
				Medical Officer	Sanitary Inspector			
From Foreign	Steamers	1,451	1,793,750	78	1,000	253	252	7
	Motor	182	118,489	5	125	9	9	1
	Sailing	157	15,463	6	123	18	18	—
	Fishing	14	7,305	—	11	1	1	1
Total Foreign		1,804	1,935,007	89	1,259	281	280	9
Coastwise	Steamers	1,658	1,551,915	5	1,122	216	216	3
	Motor	205	103,332	—	117	3	3	—
	Sailing	56	6,503	—	21	—	—	—
	Fishing	392	45,661	—	97	5	5	—
Total Coastwise		2,311	1,707,411	5	1,357	224	224	3
Total Foreign and C'stwise		4,115	3,642,418	94	2,616	505	504	12

* Including tugboats, sand barges, pleasure steamers, etc.

The following table shows the number of vessels entering the port which were dealt with by the department each month during 1935:—

Month	From Foreign	Coastwise	Totals
January	164	226	390
February	120	202	322
March	166	194	360
April	152	182	334
May	149	180	329
June	164	145	309
July	179	188	367
August	157	196	353
September	131	174	305
October	148	200	348
November	137	215	352
December	137	209	346
Totals	1,804	2,311	4,115

The nationalities of the several types of vessels entering the port which were dealt with by the department during 1935 are shown in the following table:—

Nationality	Steam	Motor	Sailing	Totals
American	5	—	—	5
Belgian	20	—	—	20
Brazilian	1	—	—	1
British	2,557	179	52	2,788
Danish	72	4	—	76
Dantzian	1	—	—	1
Dutch	14	65	—	79
Egyptian	4	—	—	4
Esthonian	52	2	—	54
Finnish	46	—	—	46
French	147	81	152	380
German	31	2	—	33
Greek	77	—	—	77
Hungarian	2	—	—	2
Icelandic	1	—	—	1
Irish Free State	48	27	9	84
Italian	17	2	—	19
Latvian	17	—	—	17
Norwegian	139	9	—	148
Panamanian	2	—	—	2
Portuguese	17	—	—	17
Russian	1	3	—	4
Spanish	97	1	—	98
Swedish	119	12	—	131
Yugo-Slav	28	—	—	28
Totals	3,515	387	213	4,115

II.—CHARACTER OF TRADE.

Passenger Traffic.—The passenger traffic at the port is small and casual and cannot be classified in the form prescribed by the Ministry of Health (*Table B*). The numbers of inward and outward passengers, all of whom travelled by cargo vessels, were 242 and 163 respectively.

Cargo Traffic.—The principal imports are iron ore, pitwood, fruit, vegetables, grain and provisions. The principal exports are coal, coke, patent fuel and flour. Amongst the countries and places with which the port trades principally may be mentioned Spain, France, Portugal, Italy, Norway, the Baltic Ports, United States of America, Argentina, Brazil, Canada and North Africa.

The following figures regarding imports and exports during 1926-35 have kindly been supplied by the Chief Docks Manager :—

Year	Imports (tons)	Exports (tons)
1926	2,003,654	4,358,411
1927	2,073,680	10,188,499
1928	1,730,940	8,970,143
1929	1,981,165	10,144,026
1930	1,711,970	8,963,328
1931	1,451,436	7,543,488
1932	1,185,010	6,944,230
1933	1,179,451	6,482,230
1934	1,250,725	6,584,936
1935	1,274,694	6,631,882

III.—WATER SUPPLY.

The water supply for the port and shipping is derived entirely from the Cardiff Corporation supply by means of hydrants installed at convenient points.

Section 75 of the Cardiff Corporation Act, 1894, provides that "where the Medical Officer of Health of the Cardiff Port Sanitary Authority is satisfied that the water in any tank, cistern, cask or other fixed receptacle in any ship, vessel or boat within the district of that authority, used or likely to be used by man for drinking or domestic purposes, is so polluted as to be injurious to health, the Medical Officer of Health of such authority may cause to be emptied and cleansed any such tank, cistern, cask or other fixed receptacle." This simplifies the procedure under Section 70 the Public Health Act, 1875, whereby an order of a court of summary jurisdiction must first be obtained.

During the year, 104 samples of drinking water from ships were submitted to the Cardiff and County Public Health Laboratory for bacteriological examination, the results being as follows :—

Satisfactory	....	....	90
Moderate purity	....	....	8
Doubtful purity	....	....	3
Contaminated	....	....	3
Total	....	....	104

Notices were served on the masters of the vessels having contaminated water or water of doubtful purity on board, and in each instance the tanks were emptied, cleansed and refilled at this port.

IV.—PORT SANITARY REGULATIONS, 1933.

The arrangements made for the operation of the Port Sanitary Regulations, 1933, at the port were fully described in the annual report for 1933.

Wireless Installations.—The results of inquiries made during the year regarding the number of vessels carrying wireless installations (excluding vessels under 500 net registered tons) are shown in the following table :—

	Vessels arriving		Totals
	From Foreign	Coastwise	
With Wireless	741	542	1,283
Without Wireless	342	146	488
Totals	1,083	688	1,771

These inquiries have been undertaken since 1926, and it will be seen from the following table that there has been virtually no increase in the proportion of vessels with wireless installations arriving at this port. :—

Year	Percentage of Vessels with Wireless Installations		
	From Foreign	Coastwise	All Arrivals
1926	67·3	52·1	63·9
1927	75·6	74·8	75·4
1928	78·6	67·0	75·4
1929	74·8	68·8	73·2
1930	69·9	72·0	70·5
1931	71·1	77·2	72·9
1932	67·1	69·2	67·8
1933	67·9	77·5	71·4
1934	69·7	77·8	72·8
1935	68·4	78·8	72·4

Cases of Infectious Disease landed from Vessels.—The following table shows the nature of 15 cases of notifiable infectious disease landed from vessels during the year :—

Ministry of Health Table C.

Disease	Number of Cases during 1935		Number of Vessels concerned	Average Number of Cases for previous 5 years
	Passengers	Crew		
Erysipelas	—	2	2	0·0
Malaria	—	11	2	7·8
Tuberculosis	—	2	2	6·0

These cases were dealt with as follows :—

Disease	Admitted to Cardiff Isolation Hospital	Admitted to Royal Hamadryad Seamen's Hospital	Allowed to return Home	Treated aboard Ship	Totals
Erysipelas	—	—	1	1	2
Malaria	—	5	—	6	11
Tuberculosis	—	2*	—	—	2
Totals	—	7	1	7	15

* One was subsequently transferred to the City Lodge Hospital and the other was repatriated.

On 16th October, 1935, a Norwegian steamship arrived at Cardiff from Dakar (Senegal), Dunkirk and Falmouth. The ship, which left Dakar on 24th September, arrived at Dunkirk on 9th October and left there on 13th October. On 14th October the ship called at Falmouth for coal bunkers and sailed for Cardiff on the same day. On arrival at Cardiff, the master reported to an inspector that several members of the crew were unwell. A medical officer visited the ship and examined four seamen, who were discovered to be suffering from malaria. Inquiries were made as to whether any other members of the crew had been ill, and the master stated that whilst at Dunkirk several of them received medical treatment on board, they also appearing to have

suffered from malaria. During the stay of the ship at this port, eight members of the crew, out of a total complement of twenty, were notified to be suffering from malaria. Five of them were removed to the Royal Hamadryad Seamen's Hospital for treatment and subsequently were repatriated to Norway, whilst the remaining three were treated on board and sailed in the ship.

Other Cases of Infectious Disease.—Five cases of tuberculosis that were dealt with by the port sanitary staff were ascertained to fall properly within the province of urban administration and were therefore referred to the urban section of the department.

Cases of Infectious Disease occurring on Vessels during the Voyage but disposed of prior to Arrival.—Six cases of infectious disease were reported to have occurred on six vessels during the voyage and were disposed of prior to arrival, as follows :—

Ministry of Health Table D.

Disease	Number of Cases during 1935		Number of Vessels concerned	Average Number of Cases for previous 5 years
	Passengers	Crew		
Pneumonia	—	1	1	1·2
Dysentery	—	1	1	0·4
Malaria	—	3	3	12·0
Tuberculosis	—	1	1	2·0

Cleansing and Disinfection.—Forty-eight seamen discovered to be suffering from scabies were treated at the Cleansing Station belonging to the Cardiff City Council, their clothing being disinfected at the Disinfecting Station, which is situated adjacently. One-hundred and ninety-one vessels were reported to be infested with bugs, and, after inspection, notices were served requiring the masters to take all necessary steps to eradicate them. Verminous or infected beds to the number of 1,842 were destroyed.

Venereal Diseases.—The following tabular statement shows the number of cases of venereal diseases dealt with at the special treatment centre for seamen at the Royal Hamadryad Seamen's Hospital each year since 1926 :—

Year	Persons attending at the Centre for the First Time					Total Attendances	Aggregate Number of In-patient Days
	Syphilis	Soft Chancre	Gonorrhoea	Conditions other than Venereal	Totals		
1926	197	93	256	19	565	12,702	2,536
1927	261	86	277	16	640	13,995	2,426
1928	205	83	344	14	646	15,347	3,195
1929	239	96	348	21	704	15,027	2,093
1930	235	112	367	17	731	12,670	1,639
1931	176	84	209	18	487	9,853	1,372
1932	198	95	297	19	609	10,004	1,707
1933	194	86	255	14	549	9,918	2,220
1934	190	90	285	25	590	9,717	2,185
1935	186	80	295	28	589	9,674	2,261

The treatment centre forms part of the scheme of the Cardiff City Council for the diagnosis and treatment of venereal diseases, and further details of the work undertaken during 1935 are contained in the report on the general health service of the city.

Twenty-five cases of venereal disease came to the knowledge of officers of the Authority during the year and were recommended for treatment at the centre.

Psittacosis.—The number of parrots dealt with under the Parrots (Prohibition of Import) Regulations, 1930, with the object of preventing the introduction of psittacosis, was 36.

V.—MEASURES AGAINST RODENTS.

It is part of the routine duty of inspectors to examine all vessels carefully for evidence of rat infestation. Deratisation of vessels is carried out by sulphur dioxide or hydrocyanic acid gas, the work being undertaken by private contractors under the supervision of officers of the department. During the year, 1,908 rats were destroyed by this method, and, of these, 307 were submitted to the Cardiff and County Public Health Laboratory for examination for the detection of plague.

During 1935 the number of deratisation certificates issued was 109 and the number of deratisation exemption certificates issued was 357, making a total of 466. The fees received by the Port Sanitary Authority in respect of certificates during the year amounted to £844 14s. 6d.

On all vessels from plague-infected ports and on all grain-laden vessels arriving at the port a rat-catcher is employed. By this means 194 rats were caught, 54 of which were examined for plague.

The use of rat-guards on mooring ropes is insisted upon, and gangways are raised at night-time whenever possible, in order to prevent the passage of rats from ships to the shore. Advice regarding the rat-proofing of vessels is given to masters and other officers of ships when necessary.

Systematic visits are paid by inspectors to quays, wharves and warehouses in the vicinity of the docks, and owners and occupiers are advised as to the best means of eradicating rodents. In most instances warehouses are reasonably rat-proof, possessing concrete floors and sliding, close-fitting doors. The importance of rendering all buildings near the docks rat-proof is constantly emphasised on owners and occupiers by the inspectors.

Extensive baiting around the docks is systematically undertaken by the dock owners (the Great Western Railway Company) and by owners and occupiers of premises in the vicinity of the docks under the supervision of officers of the department. During the year, 162,615 poison baits were laid and 1,955 rats and 362 mice were found dead as a result of these measures.

For the purpose of surveying the area around the docks for rats periodically, the district has been divided into four areas, as follows :—

- No. 1. Penarth Dock, Windsor Slipway to Glamorganshire Canal Entrance.
- No. 2. Glamorganshire Canal, West Dock to West Side of East Dock.
- No. 3. East Side of East Dock to North Side of Roath Dock.
- No. 4. South Side of Roath Dock, Roath Basin and Queen Alexandra Dock.

A rat-catcher is engaged for a period of one week on each area. Traps are set and the live rats caught are submitted to the Department of Zoology of the National Museum of Wales for classification and identification of their parasitic fleas and later to the Cardiff and County Public Health Laboratory for the detection of plague.

The whole district is surveyed in this way at least once every four weeks, and valuable information is being obtained as to the prevalence of rats, their species and the extent of their infestation by fleas. During the year, 138 rats were caught under this scheme, of which 84 were submitted for classification and for examination for plague.

Leaflets containing full information regarding deratisation of ships have been issued by the Cardiff Port Sanitary Authority to (a) shipowners and shipping agents and (b) fumigation contractors. With a few exceptions as to details, general agreement has been obtained with all the principal Port Sanitary Authorities in the Bristol Channel as to the essential points included in the leaflets, which are reproduced below :—

DERATISATION OF SHIPS.

INFORMATION FOR SHIPOWNERS AND SHIPPING AGENTS.

1. Under Article 19 of the Port Sanitary Regulations, 1933, made by the Minister of Health, which implements in this country Article 28 of the International Sanitary Convention of Paris, 1926, the Medical Officer of Health of an "approved" port is required on the arrival

of a ship from a foreign port, not possessing a valid deratisation or deratisation exemption certificate, to ascertain whether the ship is so maintained that the number of rats on board is kept down to the minimum. If, after inspection, the Medical Officer of Health is satisfied that such is the case he must issue a deratisation exemption certificate. Otherwise he must require the ship to be deratised in such manner as may be specified and approved by him, and after deratisation has been completed to his satisfaction he must issue a deratisation certificate. In addition, the owner or master of a ship may apply to the Medical Officer of Health for a certificate, whereupon he must satisfy himself in the manner previously described as to the condition of the ship as regards rats and issue either one or the other of the certificates referred to. The owner or master of the ship must pay to the Port Sanitary Authority such fee for inspection and the issue of a certificate as the Minister of Health may from time to time determine. By "valid certificate" is meant a certificate that has been issued at an "approved" port either at home or abroad within the preceding six months, or, where the ship is proceeding to her home port, within the last preceding seven months.

2. The Minister of Health has approved the Port of Cardiff for the purposes of Article 19 of the Port Sanitary Regulations, 1933, and the certificates may be issued on application to THE MEDICAL OFFICER OF HEALTH, 31, LOUDOUN SQUARE, CARDIFF (Telephone No. 178 Cardiff). Such an application should state the following particulars:—(a) The name of the vessel, (b) nationality, (c) foreign port from which the vessel has come, (d) where it is located, (e) when the holds will be empty, and (f) when it is expected to sail.

3. When application is made to the Medical Officer of Health for a Certificate of Deratisation, it should be made so as to allow at least 24 hours before the time of inspection. In addition to the particulars set out in paragraph 2, the application should state the name of the firm which will carry out the fumigation and the process proposed to be employed.

4. The Cardiff Port Sanitary Authority does not carry out the fumigation of vessels, but supervises the operation. The mode of procedure is for the shipowner or the agent to place the contract with a firm which undertakes the work. A list of the approved firms will be supplied on request.

It is essential that the following requirements should be carried out strictly:—

- (a) All parts of the vessel must be fumigated simultaneously when the ship is empty; no exception to this can be entertained without the permission of the Medical Officer of Health. Engine rooms and stoke-holds are usually exempted, but in the case of a plague-infected or suspected vessel fumigation of all parts of the vessel, even if loaded, may be insisted upon.
- (b) The vessel must be properly prepared. All ventilators must be securely covered, hatches well-fitting and covered with two tarpaulins, and the necessary appliances for battening down provided. Doors and openings must be properly sealed.
- (c) Rat harbourage, such as dunnage, bilges and wooden pipe-casing, must be so arranged and opened up as to permit the penetration of the fumigant. In the case of hydrogen cyanide all internal doors must be hooked open and all external doors must be closed but *not* locked.
- (d) When fumigation of lifeboats is necessary, the tank casing should be partly removed and each boat covered with a good tarpaulin.
- (e) Foodstuffs, other than tinned goods, must be removed from the store-rooms prior to fumigation.

5. A Certificate of Deratisation will not be granted unless the following standards are strictly applied:—

Sulphur Dioxide.—When the gas is generated by burning sulphur, 3 lb. of sulphur per 1,000 cubic feet of space, with a minimum exposure period of eight hours. Sulphur of good quality to be used and distributed in open containers of not more than 5 lb. If liquefied sulphur dioxide is used, 2 lb. of liquefied gas will be necessary for each lb. of sulphur.

Hydrogen Cyanide.—When the gas is generated by the vapourisation of liquid hydrogen cyanide, 2 oz. must be used per 1,000 cubic feet of space, with a minimum exposure period of two hours. Where the gas is generated by the dumping method, for each 1,000 cubic feet of space, 5 oz. of sodium cyanide must be allowed, with an exposure of two hours. If Zyklon B. is used, an amount equivalent to 60 grammes of hydrogen cyanide per 1,000 cubic feet is necessary. The exposure is again two hours. Fumigation with hydrogen cyanide must be carried out in daylight.

6. An officer of the Port Sanitary Authority will attend at all fumigations in order to ensure that the process has been so carried out that a certificate may be issued.

7. Loaded vessels require double the period of exposure.

8. When hydrogen cyanide is used it is advised that the contractor should receive a signed statement from the officer in charge of the vessel that all officers and crew have vacated the vessel. After the vessel is clear of fumigant, the contractor should give a certificate that the vessel is clear of fumigant and safe for the return of the crew. The Cardiff Port Sanitary Authority repudiates all responsibility for any accident or damage which may occur in the process of fumigation.

9. A Deratisation Exemption Certificate can only be granted after the whole vessel has been thoroughly examined by an officer of the Port Sanitary Authority. The examination usually takes several hours to complete and must be carried out during the hours of daylight. Arrangements should be made to give every assistance to the officer making the examination, especially in the opening up of compartments requiring inspection. Failure to co-operate may mean the refusal of a certificate.

10. It is strongly advised, and in some cases it may be required, that during the stay of vessels at this port the following rat precautionary measures be carried out:—

- (a) Rat-guards to be affixed to all mooring ropes and so placed as to prevent the passage of rats between ship and shore.
- (b) When loading or discharging operations are not being carried out, the gangway from ship to shore should be raised at least three feet above the quay. Wooden-runged ladders should in all cases be taken on board at night.

11. Vessels discharging grain and vessels arriving from plague-infected ports must be moored at least three feet from the shore during their stay in port.

12. The attention of owners is drawn to the fact that much expense and delay may be avoided if their ships are kept in a rat-free condition, thus obviating the necessity of fumigation every six months. Much can be done by adopting rat-proofing devices in the future construction of vessels, and in old vessels special attention should be directed to the elimination of rat harbourage. Advice will be given readily on application.

13. The fee payable to the Port Sanitary Authority for each certificate issued is in accordance with the following scale:—

						£	s.	d.
Ships up to	300 tons	.....	.....	.....	.....	10	6	
„ from	301 „ to 1,000 tons	.....	.....	.....	.....	1	1	0
„ „	1,001 „ „ 3,000 tons	.....	.....	.....	.....	2	2	0
„ „	3,001 „ „ 10,000 tons	.....	.....	.....	.....	3	3	0
„ over	10,000 „ „ „ „	.....	.....	.....	.....	4	4	0

FUMIGATION OF SHIPS. INFORMATION FOR CONTRACTORS.

1. Attention is called to the following general procedure which must be adopted by persons undertaking the work of ship fumigation at the Port of Cardiff in order to meet with the approval of the Medical Officer of Health:—

- (a) Notice must be sent to the PORT SANITARY OFFICES, 31, LOUDOUN SQUARE, CARDIFF (Telephone No. 178 Cardiff) at least 24 hours before it is intended to fumigate a vessel. The name and place where the vessel is likely to berth should be stated, together with the time it is proposed to commence the operation.
- (b) Fumigation of all parts of the vessel, when empty of cargo, must be carried out simultaneously. No exception to this rule will be entertained without the approval of the Medical Officer of Health. Engine rooms and stoke-holds are usually exempted, but in the case of a plague-infected or suspected ship fumigation of all parts of the vessel, even if loaded, may be insisted upon.
- (c) It is important that contractors instruct shipmasters or other responsible officers that all dunnage, bilges, wooden pipe-casing and such like, which are likely to harbour rats, must be opened up in such a manner as to allow the free penetration of the fumigant. Ventilators, side ports and other openings must be made fast. Doors must be properly sealed and hatch covers well-fitting and provided with the necessary appliances for battening down.
- (d) Foodstuffs, other than tinned goods, should be removed from the store-rooms prior to fumigation.

2. A Certificate of Deratisation will not be granted unless the following standards are strictly applied. :—

Sulphur Dioxide.—When the gas is generated by burning sulphur, 3 lb. of sulphur per 1,000 cubic feet of space, with a minimum exposure period of eight hours. Sulphur of good quality to be used and distributed in open containers of not more than 5 lb. If liquefied sulphur dioxide is used, 2 lb. of liquefied gas will be necessary for each lb. of sulphur.

Hydrogen Cyanide.—When the gas is generated by the vaporisation of liquid hydrogen cyanide, 2 oz. must be used per 1,000 cubic feet of space, with a minimum exposure of two hours. When the gas is generated by the dumping method, for each 1,000 cubic feet of space, 5 oz. of sodium cyanide must be allowed, with an exposure of two hours. In the case of Zyklon B. being used, an amount equivalent to 60 grammes of hydrogen cyanide per 1,000 cubic feet is necessary. All internal doors must be hooked open and all external doors must be closed but *not* locked. Exposure is again two hours. Fumigations with hydrogen cyanide must be carried out in daylight.

When hydrogen cyanide is used it is advised that the contractor should, before the commencement of the actual process, receive a written declaration that no member of the crew or other person remains on board the vessel. After the vessel is clear of fumigant, the contractor should give a written guarantee that the crew may return with safety to their quarters.

3. Loaded vessels require double the period of exposure.

4. The Cardiff Port Sanitary Authority repudiate all responsibility for any accident or damage which may occur in the process of fumigation.

5. An officer of the Port Sanitary Authority will be in attendance to supervise the process of fumigation.

6. Non-observance of any of the foregoing requirements on the part of persons carrying out deratisation may involve the refusal of a certificate. When the fumigation has been completed, the number of rats destroyed will be ascertained by officers of the Port Sanitary Authority.

There has been a considerable reduction in the number of rats infesting ships. This has led to an increase in the proportion of deratisation exemption certificates granted. The increase in the proportion of these certificates granted at this port since 1930 is shown in the following table :—

Year	Deratisation Certificates		Deratisation Exemption Certificates		Totals
	Number	Percentage	Number	Percentage	
1930	236	36	420	64	656
1931	195	32	407	68	602
1932	121	23	411	77	532
1933	124	26	353	74	477
1934	126	28	328	72	454
1935	109	23	357	77	466

Ministry of Health Table G.
MEASURES OF RAT DESTRUCTION ON PLAGUE "INFECTED" OR "SUSPECTED" VESSELS OR VESSELS FROM PLAGUE INFECTED PORTS ARRIVING IN THE PORT DURING THE YEAR.

Total Number of such Vessels arriving	Number of such Vessels fumigated by SO ₂	Number of Rats killed	Number of such Vessels fumigated by HCN	Number of Rats killed	Number of such Vessels on which trapping, poisoning, &c., were employed	Number of Rats killed	Number of such Vessels on which measures of Rat destruction were not carried out
1	2	3	4	5	6	7	8
61	—	—	—	—	6	80	55

Ministry of Health Table H.
DERATISATION CERTIFICATES AND DERATISATION EXEMPTION CERTIFICATES ISSUED DURING THE YEAR.

NET TONNAGE	Number of Ships	No. of Deratisation Certificates issued					Number of Deratisation Exemption Certificates Issued	Total Certificates Issued
		After fumigation with			After Trapping, Poisoning, etc.	Total		
		HCN	Sulphur	HCN and Sulphur				
1	2	3	4	5	6	7	8	9
Ships up to 300 tons	91	1	—	—	—	1	90	91
„ from 301 tons to 1,000 tons	74	—	1	—	—	1	73	74
„ from 1,001 tons to 3,000 tons	218	16	57	—	—	73	145	218
„ from 3,001 tons to 10,000 tons	83	9	24	1	—	34	49	83
„ over 10,000 tons	—	—	—	—	—	—	—	—
Totals	466	26	82	1	—	109	357	466

VI.—HYGIENE OF CREWS' SPACES, ETC.

Special attention was directed in the report for 1934 to the unsatisfactory condition of crews' spaces. There has been no improvement in the condition of these spaces on British vessels and but slight improvement on foreign vessels arriving at Cardiff during 1935, as will be seen from the diagram given on the next page.

During the year, 4,115 vessels, with a tonnage of 3,642,418, were visited by inspectors on arrival or as soon afterwards as practicable. The number of persons in the crews carried by these vessels was 69,118. In addition, 5,640 re-inspections of ships in dock were made, and 505 orders were given to masters and others in connection with nuisances and sanitary defects.

Ministry of Health Table J.

CLASSIFICATION OF NUISANCES.

Nationality of Vessel	Number Inspected during the year	Defects of original construction	Structural defects through wear and tear	Dirt, vermin and other conditions prejudicial to health
British	1,661	1	202	1,085
Other Nations ..	955	—	99	480

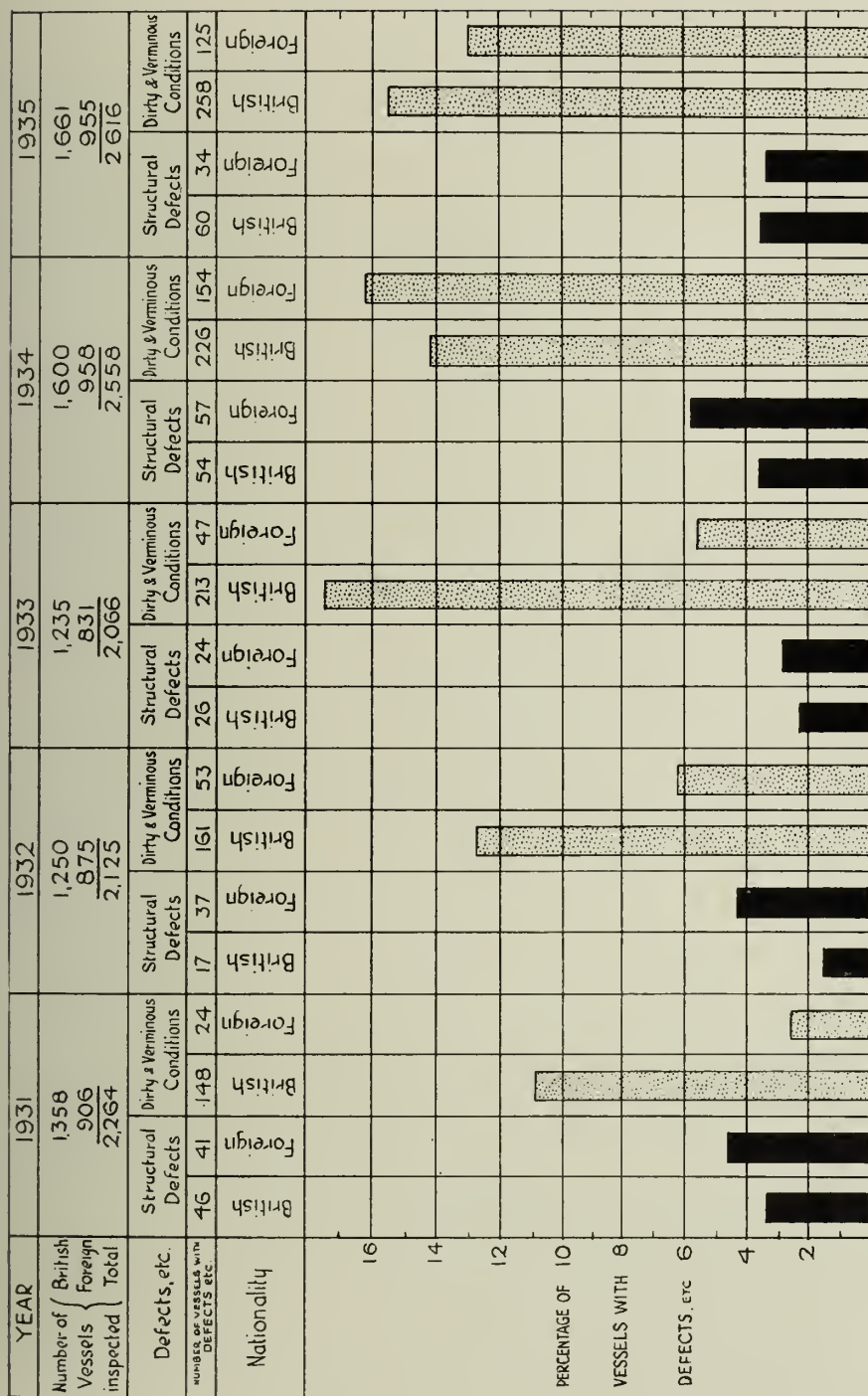
The following table shows the number of the defects referred to in the preceding table which were remedied during the year :—

Nationality of Vessel	Defects of original construction	Structural defects through wear and tear	Dirt, vermin and other conditions prejudicial to health
British	1	201	1,085
Other Nations ...	—	99	480

CARDIFF PORT SANITARY AUTHORITY

INSPECTION OF SHIPPING

STRUCTURAL DEFECTS AND DIRTY AND VERMINOUS CONDITIONS



VII.—FOOD INSPECTION, ETC.

Imported Foodstuffs.—The quantities of various kinds of foodstuffs imported during the year were as follows :—

Description	Tons	cwt.	Bags	Bales	Barrels	Boxes	Miscellaneous
Bacon	—	—	—	392	—	—	—
Barley	—	—	890	—	—	—	—
Biscuits	—	—	—	—	—	—	59 skips
Butter	—	—	—	—	60	45,521	—
Caraway Seed	—	—	10	—	—	—	—
Catsup	—	—	—	—	—	24,239	—
Cheese	—	—	—	—	—	23,789	—
Chicory	—	—	—	—	—	10	—
Confectionery	—	—	—	—	20	480	—
Cream, Canned	—	—	—	—	—	2,024	—
Eggs	—	—	—	—	—	602	—
Fat, Edible	—	—	285	20	420	222	—
Fish, Canned	—	—	—	—	—	5,577	—
Fish, Fresh	5,413	15	—	—	—	—	—
Fish, Pickled	—	—	—	—	35	—	—
Fish, Salted	—	—	—	20	10	22	—
Flour	—	—	16,947	—	—	—	—
Fruit, Canned	—	—	—	—	—	71,318	—
Fruit, Dried	—	—	—	—	—	28,343	—
Fruit, Fresh	—	—	—	—	139,828	401,669	19,514 baskets
Fruit Juice	—	—	—	—	206	500	—
Fruit Pulp	—	—	—	—	301	389	—
Glucose	—	—	—	—	387	—	50 drums
Lard	—	—	—	—	—	43,572	—
Macaroni.....	—	—	—	—	—	8,624	—
Malt	—	—	50	—	—	—	—
Margarine	—	—	—	—	—	148	—
Meat, Canned	—	—	—	—	—	15,955	—
Meat, Preserved	—	—	—	—	—	17	—
Meat, Salted	—	—	—	—	319	1	—
Milk, Canned	—	—	—	—	—	164,808	—
Milk Dried	—	—	—	—	—	30	—
Nuts	—	—	150	—	—	60	—
Oats, Rolled	—	—	780	—	—	25,120	—
Oil, Edible	—	—	—	—	124	87	—
Olive Oil	—	—	—	—	—	100	—
Olives	—	—	—	—	30	—	—
Peas and Beans	—	—	2,885	—	—	—	—
Provisions, Canned	—	—	—	—	—	12	—
Rice	—	—	814	—	—	—	—
Sugar	—	—	16,730	—	—	—	—
Tomatoes, Canned..	—	—	—	—	—	12,480	—
Tomato Juice	—	—	—	—	—	30	—
Vegetables, Canned	—	—	—	—	—	73,029	—
Vegetables, Dried	—	—	9,056	—	—	—	—
Vegetables, Fresh	5,351	0	106,509	—	4,754	59,011	46,985 baskets
Vegetables, Salted...	—	—	—	—	642	—	—
Wheat	91,337	0	—	—	—	—	—
Wheat Products	—	—	70	—	—	5,835	—
Wine	—	—	—	—	49	—	—
Yeast	—	—	—	—	—	17	—

Imported Meat.—In addition to the foodstuffs referred to above, twelve cargoes of frozen meat were imported, the quantities being as follows :—

Carcases of lamb	....	....	131,643
Carcases of pork	....	....	1,913
Carcases of mutton	....	....	21,783
Quarters of mutton	....	....	2,704
Quarters of beef	....	....	16,018
Boneless beef (bags)	....	....	225
Buttocks of beef	....	....	395
Crops of beef	....	....	3,186
Lamb livers (boxes)	....	....	10
Offal (bags)	....	....	1,101
Offal (boxes)	....	....	247
Ox livers (bags)	....	....	66
Ox hearts (bags)	....	....	10
Ox tails (bags)	....	....	25
Ox kidneys (boxes)	....	....	20
Poultry (boxes)	....	....	176
Rabbits (crates)....	....	....	1,550

Public Health (Imported Food) Regulations, 1925, and Public Health (Imported Food) Amendment Regulations, 1933.—The total quantity of food withheld from human consumption during the year was 123 tons 9 cwt. 1 $\frac{1}{4}$ lb. In addition, the under-mentioned "conditionally admissible meat," which was imported without an official certificate, was re-exported :—

Ox kidneys	....	....	1,009 cases.
Ox livers	....	....	2,899 cases and 1,418 bags.
Calves livers	....	....	1,000 bags.
Ox tails	....	....	724 bags.

Seven samples were submitted to the Public Analyst for analysis under the Public Health (Imported Food) Regulations, comprising :—

Cocoa Butter	....	....	1
Lard	....	....	1
Malt coffee	....	....	1
Oleo oil	....	....	1
Sardines	....	....	2
Strawberry pulp	....	....	1
Total	....	....	<u>7</u>

All of these samples were reported to be genuine or to contain preservatives within the limits laid down by the Public Health (Preservatives, etc., in Food) Regulations.

Public Health (Imported Milk) Regulations, 1926.—No fresh milk was imported during the year.

Public Health (Shell-fish) Regulations, 1934.—There are no shell-fish beds or layings within the area under the jurisdiction of the Port Sanitary Authority.

Public Health (Preservatives, etc., in Food) Regulations, 1925-27.—Twenty-five samples of food were submitted to the Public Analyst for analysis as to the presence of preservatives, comprising :—

Glacé cherries	....	....	4
Raisins	....	....	13
Sultanas	....	....	8
Total	....	....	<u>25</u>

All of these samples were reported to be genuine or to contain preservatives within the limits laid down by the Regulations.

Bacteriological and Chemical Examinations.—Two samples of condensed milk, one sample of sardines and one sample of sausage were submitted for bacteriological examination, and one sample of condensed milk and one sample of sausage were submitted for chemical examination. One of the samples of condensed milk was found to be unsatisfactory, and the whole consignment was appropriately dealt with. All the other samples were reported to be satisfactory.

VIII.—MISCELLANEOUS.

Medical Inspection of Aliens.—The following is a summary of the work done during the year in connection with the medical inspection of aliens :—

	Total Number.	Number Inspected by Medical Inspectors.
Aliens (excluding alien seamen) landing at the port....	218	105
Aliens refused permission to land by Immigration Officer	17	—
Totals	235	105
Number of vessels carrying alien passengers	86	
Number of such vessels dealt with by the Medical Inspector	13	
Analysis of aliens landing :—		
Residents returning		16
In transit		18
Visitors		54
Business		105
Diplomatic		1
Contract seamen		23
Ministry of Labour permit		1
Coming to settle, not holding Ministry of Labour permit		—
Total		218

Of the 105 aliens medically inspected, 101, who intended taking up employment and remaining in the country over three months, were referred by the Immigration Officer for detailed medical examination. One of them was refused permission to land, as he appeared to be mentally unfit ; a certificate to that effect was forwarded to the Ministry of Health.

Diseases of Animals Acts, etc.—The various Orders under the Diseases of Animals Acts with reference to the importation of animals were strictly enforced during the year. Three hundred and twenty-nine dogs and 648 cats were brought to the port on vessels, and one vessel arrived direct from a scheduled country with two sheep on board. All the vessels were visited regularly during their stay in port to ensure that the requirements of the Orders were observed.

Canal Boats.—The Chief Port Sanitary Inspector, who is also Inspector of Canal Boats, has reported that he made 54 inspections of canal boats during the year and found infringements of the Regulations made under the Canal Boats Act, 1877, regarding painting in 13 instances and marking in one instance. Verbal instructions were given, and the infringements in each case were remedied. The number of boats (not propelled by motor) on the register was seven, each with accommodation for two males. The sanitary condition of the canal boats generally was satisfactory.

SCHOOL MEDICAL SERVICE.

I.—STAFF.

The medical staff consists of the School Medical Officer, a Deputy Medical Officer and nine Assistant Medical Officers (including two who are engaged in a part-time capacity). The members of the medical staff devote part-time only to the school medical service, as they are also engaged in the work of other sections of the Public Health Department. The staff-time devoted by the Deputy Medical Officer and Assistant Medical Officers to the school medical service is equivalent to the whole time of four medical officers. There are in addition two part-time Specialist Medical Officers—an Ophthalmic Surgeon and an Orthopaedic Surgeon.

The other staff engaged in the school medical service comprise four Dentists, four Dental Clerk-Attendants, a Supervisor of Nurses, 11 School Nurses, a Chief Clerk and 10 Clerks (eight of whom are females). The Supervisor of Nurses, two of the Nurses who are engaged in orthopaedic work and the Chief Clerk are also employed in other sections of the department.

Apart from the usual annual changes in the two part-time Assistant Medical Officers on 1st October, 1935, there were no changes in the personnel of the staff during the year.

II.—CO-ORDINATION.

The school medical service is very completely co-ordinated with all other public health work under the Medical Officer of Health, who is also School Medical Officer. The service is also carried on in close co-operation with the Education Department (including school attendance officers), head teachers and all voluntary agencies in Cardiff concerned with the health and welfare of school children.

III.—SCHOOL HYGIENE.

A complete review of the hygienic condition of all the public elementary schools was undertaken in 1934 and was reported upon fully in the last annual report. Many of the defects referred to still exist, but the provision of new school buildings in certain parts of the city reduces the urgency of carrying out extensive and costly alterations and repairs to old buildings.

The Public Works Department of the City Council is primarily responsible for the sanitary and structural condition of school buildings. Defects found by medical officers and sanitary inspectors, however, are reported to the Director of Education, by whom they are referred to the appropriate committee to be remedied.

IV.—MEDICAL INSPECTION.

Routine medical inspection of the following groups of children attending elementary schools was undertaken during the year, as required by the Board of Education :—

- (a) Entrants within 12 months of admission.
- (b) Second age group, i.e., children between the ages of 8 and 9 years.
- (c) Third age group, i.e., children who had attained the age of 12 years.

All routine medical inspections are carried out at the schools, the parents of the children to be examined being notified beforehand and invited to be present. Children outside the routine age groups who are regarded by head teachers as requiring special attention are brought forward at the time routine inspections are taking place. Most of the special inspections, however, are conducted at the school clinics.

The numbers of elementary school children inspected at routine medical inspections were as follows :—

	Boys	Girls	Totals
Entrants (within 12 months of admission)	1,673	1,584	3,257
Second Age Group (8 to 9 years)	2,061	2,143	4,204
Third Age Group (over 12 years)	1,430	1,360	2,790
Other Routine Inspections	111	90	201
Totals	5,275	5,177	10,452

The number of elementary school children specially inspected and the number of re-inspections undertaken were as follows :—

	Boys	Girls	Totals
Special Inspections { At School	317	349	666
{ At School Clinic ...	2,431	3,084	5,515
Totals	2,748	3,433	6,181
Re-inspections { At School	796	996	1,792
{ At School Clinic ...	2,618	3,438	6,056
Totals ...	3,414	4,434	7,848

V.—FINDINGS OF MEDICAL INSPECTION.

Details of the diseases and defects found by routine and special medical inspection are given in Table IIA, page 167. Of the 10,452 elementary school children inspected at routine inspections, 2,157, or 20·9 per cent., were found to require treatment (excluding uncleanness and dental disease), the percentages of the three groups requiring treatment being as follows :—

Entrants (within 12 months of admission)	18·2 per cent.
Second Age Group (8 to 9 years)	22·2 per cent.
Third Age Group (over 12 years)	22·5 per cent.

The proportion of defective children found in the course of routine inspection in each of the three groups has been fairly constant for several years. The corresponding percentages for 1934 were as follows :—

Entrants (within 12 months of admission)	18·7 per cent.
Second Age Group (8 to 9 years)	21·3 per cent.
Third Age Group (over 12 years)	23·4 per cent.

Of the 6,181 individual children specially inspected, 3,575, or 57·8 per cent., were found to require treatment (excluding uncleanness and dental disease).

The number and proportion of elementary school children in whom diseases or defects requiring treatment or to be kept under observation were found are shown in the following table :—

Diseases or Defects	Diseases or Defects found at Routine Inspection		Diseases or Defects found at Special Inspection	
	Number	Percentage	Number	Percentage
Skin diseases	170	1·66	1,421	22·99
Defective vision and squint	806	7·86	144	2·33
External eye diseases	70	0·68	114	1·84
Defective hearing	65	0·63	70	1·13
Other ear diseases	178	1·73	158	2·55
Chronic tonsillitis	662	6·46	198	3·20
Adenoids only	33	0·32	20	0·32
Chronic tonsillitis and adenoids	197	1·92	72	1·16
Other nose and throat defects	106	1·03	169	2·73
Enlarged cervical glands	54	0·52	79	1·28
Defective speech	21	0·20	22	0·35
Diseases of the heart and circulation	491	4·79	337	5·45
Non-tuberculous diseases of the lungs	388	3·78	300	4·85
All forms of tuberculosis (including suspects)	19	0·18	59	0·95
Diseases of the nervous system	114	1·11	169	2·73
Deformities	156	1·52	48	0·78
Other diseases and defects (excluding uncleanliness and dental diseases)	684	6·67	1,187	19·20

Nutrition.—Attention is directed to Table IIB, page 168, in which the nutrition of children inspected in the routine age groups is classified in detail. It will be seen that of the 10,452 children inspected, the nutrition of 627, or 6·0 per cent., was slightly sub-normal and that in 235 cases, or 2·2 per cent., it was bad.

Entrants —Parents or guardians are asked to supply particulars as to the medical history of entrants prior to their routine medical inspection. During 1935 information was received regarding 2,802 of the 3,257 children inspected as entrants, from which the following table has been compiled :—

Diseases	Boys		Girls		Both Sexes	
	Number	Percentage	Number	Percentage	Number	Percentage
Measles	910	64·2	866	62·5	1,776	63·4
Whooping cough	505	35·6	577	41·7	1,082	38·6
Chickenpox	280	19·8	251	18·1	531	19·0
Scarlet fever	96	6·8	86	6·2	182	6·5
Diphtheria	44	3·1	48	3·5	92	3·3
Rheumatism	10	0·7	3	0·2	13	0·5
Chorea	1	0·0	2	0·1	3	0·1
Tuberculosis	2	0·1	3	0·2	5	0·2
Bronchitis	53	3·7	65	4·7	118	4·2
Pneumonia	69	4·9	64	4·6	133	4·7
Other diseases	244	17·2	181	13·1	425	15·2

Of the 3,257 entrants medically inspected, 593 were found to require immediate treatment (excluding uncleanliness and dental diseases) and, in addition, many diseases or defects were found which required to be kept under observation. The numbers of all diseases or defects found in 1,366 of the entrants inspected, whether requiring treatment or to be kept under observation, were as follows :—

<i>Diseases or Defects.</i>			<i>Number.</i>
Skin diseases	....	....	86
Defective vision	....	....	5
External eye diseases	....	....	68
Ear diseases	....	....	95
Diseases of nose and throat	....	....	397
Heart diseases	....	....	95
Anaemia	....	....	38
Lung diseases (non-tuberculous)	....	....	224
Tuberculosis—			
Pulmonary	....	....	2
Non-pulmonary	....	....	1
Dental diseases	....	....	376
Other defects and diseases	....	....	218
Total			1,605

Taking all diseases and defects into consideration, 41·9 per cent. of the entrants were found to be defective, as compared with 44·8 per cent. in 1934 and 43·7 per cent. in 1933.

Re-inspection of Children found with Defects.—When carrying out routine inspections at schools the medical officers re-inspect children previously found with certain diseases or defects. During 1935 the number of children re-inspected in this way was 2,118, the number of diseases or defects from which they had suffered being 2,223. The results of these re-inspections are given in the following table, from which it will be seen that of the total number of diseases or defects, 1,255 had been treated under the Authority's scheme, 131 had been treated elsewhere and that 837 had not been treated.

	Cured or Improved	No Improvement	Worse	Total Number of Defects
TREATED UNDER THE AUTHORITY'S SCHEME :—				
Eye diseases	473	15	—	488
Ear diseases	84	19	—	103
Diseases of nose and throat	188	13	—	201
Heart diseases	37	53	—	90
Anaemia	22	6	—	28
Lung diseases (non-tuberculous)	36	1	—	37
Tuberculosis—				
Pulmonary	—	—	—	—
Non-pulmonary	—	—	—	—
Nervous diseases	25	4	—	29
Deformities	48	12	—	60
Other defects and diseases (excluding uncleanliness, infectious skin diseases, and dental diseases)	199	20	—	219
Totals	1,112	143	—	1,255
Percentage	88·6	11·4	—	—
TREATED ELSEWHERE :—				
Eye diseases	3	2	—	5
Ear diseases	4	1	—	5
Diseases of nose and throat	8	2	—	10
Heart diseases	2	5	—	7
Anaemia	4	—	—	4
Lung diseases (non-tuberculous)	17	5	—	22
Tuberculosis—				
Pulmonary	2	—	—	2
Non-pulmonary	5	—	—	5
Nervous diseases	9	—	—	9
Deformities	9	2	—	11
Other defects and diseases (excluding uncleanliness, infectious skin diseases, and dental diseases)	48	3	—	51
Totals	111	20	—	131
Percentage	84·7	15·3	—	—
NOT TREATED :—				
Eye diseases	79	110	43	232
Ear diseases	1	8	—	9
Diseases of nose and throat	119	146	6	271
Heart diseases	65	65	—	130
Anaemia	4	4	—	8
Lung diseases (non-tuberculous)	40	18	—	58
Tuberculosis—				
Pulmonary	—	—	—	—
Non-pulmonary	—	—	—	—
Nervous diseases	3	3	—	6
Deformities	2	17	—	19
Other defects and diseases (excluding uncleanliness, infectious skin diseases, and dental diseases)	49	54	1	104
Totals	362	425	50	837
Percentage	43·2	50·8	6·0	—
Grand Totals	1,585	588	50	2,223
Percentage	71·3	26·5	2·2	—

Since 1925 there has been a gradual increase in the proportion of defects that have been cured or have improved, as will be seen from the figures in the following table :—

	Percentage		
	Cured or Improved	Not Improved	Worse
1925	60·0	39·7	0·3
1926	58·9	40·4	0·7
1927	58·4	39·5	2·1
1928	60·7	36·8	2·5
1929	61·4	36·3	2·3
1930	62·4	35·3	2·3
1931	69·2	28·9	1·8
1932	65·4	31·8	2·8
1933	70·8	27·0	2·2
1934	70·8	27·0	2·1
1935	71·3	26·5	2·2

VI.—“FOLLOWING UP” AND THE WORK OF SCHOOL NURSES.

In addition to the advice given by the medical officers to parents who are present at the inspection of their children, appropriate notices are sent directing their attention to diseases or defects discovered. Lists of defective children are also sent to head teachers with a view to their co-operation in seeing that treatment is obtained. As a result of these notices many children attend the school clinics for further inspection and/or treatment or obtain treatment elsewhere without visits to their homes by school nurses. The parents of all children requiring treatment who are not seen at the clinics, or are not otherwise ascertained to have received treatment, are subsequently visited by school nurses, who impress upon them the need for treatment. The following is a summary of the work of the school nurses in this connection during the year :—

Diseases or Defects	First Visits	Revisits	Totals
Defects of vision	1,093	398	1,491
Defects of teeth	738	125	863
Defects of ear, nose and throat	698	300	998
Other defects	2,536	645	3,181
Totals	5,065	1,468	6,533

Amongst other work undertaken by the school nurses may be mentioned the systematic examination at the schools of children for uncleanness, attendance at the clinics in connection with medical inspection, medical treatment and dental treatment, the treatment of minor ailments under the supervision of medical officers, the following up of children who have received treatment at the clinics, and the cleansing of children suffering from scabies at the Corporation Cleansing Station.

As shown above, the total number of visits paid by the nurses to the homes of children was 6,533, and the following is a summary of other work done by them during the year :—

Number of—

Special visits to schools	277
Examinations of children for uncleanness	39,484
Children found with vermin and/or nits	1,914
Re-examinations of children previously found unclean	1,218
Children found to have been cleansed	180
Children suffering from scabies dealt with at the Cleansing Station	97
Number of baths given	194

VII.—ARRANGEMENTS FOR TREATMENT.

Malnutrition.—Children suffering from malnutrition are either referred for special inspection at the school clinics or followed up by the school nurses, and parents are advised as to appropriate methods of treatment. Free meals and milk are provided in financially necessitous cases. Cod-liver oil and malt, cod-liver oil, and iron and ammonium citrate are provided through the clinics at cost price for cases in which they are prescribed. In certain instances malnourished children are admitted to the Open-Air School (see page 160).

Uncleanliness.—Special attention is given by the school nurses to cases of uncleanliness (see page 150). Printed instructions are supplied to parents regarding methods of destroying vermin and nits, and special nit combs are provided by the department at cost price.

Minor Ailments and Diseases of the Skin.—The treatment of minor ailments and diseases of the skin is undertaken at the school clinics. Details of the treatment carried out during 1935 are given in the statistical tables (see page 171), from which it will be seen that 1,992 cases received treatment, as compared with 2,047 in 1934. Special attention is given to the treatment of ringworm; the number of cases treated by or under the supervision of the medical staff was 77, 10 of them being ringworm of the scalp. When necessary and with the consent of the parents, cases of scalp ringworm are treated by X-rays, and during 1935 three cases received this form of treatment. Arrangements have been made whereby nurses of the Queen's Institute of District Nursing render assistance in the home nursing and treatment of minor ailments, and particulars of the work undertaken by them during 1935 are shown in the following table:—

Diseases or Defects	Cases Carried over from 1934		Cases Referred for Treatment during 1935		Totals	
	Cases	Visits	Cases	Visits	Cases	Visits
Skin:—						
Impetigo	—	—	40	470	40	470
Other skin diseases	—	—	8	110	8	110
Minor eye defects	—	—	2	12	2	12
Minor ear defects	—	—	5	90	5	90
Miscellaneous	2	15	105	1,071	107	1,086
Totals	2	15	160	1,753	162	1,768

Visual Defects and External Eye Disease.—Visual defects and external eye diseases are treated at the school clinics. In addition to a medical officer on the staff who devotes part time to the work, a specialist ophthalmic surgeon is engaged for two sessions weekly. Spectacles are provided through the department at very reasonable prices, and in necessitous cases they are provided free of charge. Particulars of the treatment of visual defects are given on page 171, from which it will be seen that 1,705 children were dealt with at the clinics, 1,449 of whom were examined for errors of refraction and 256 were treated for other defects. Spectacles were prescribed for 1,381 children, and in 1,344 instances they were known to have been obtained.

The diseases and defects discovered in all the children who were dealt with at the vision clinics during the year are shown in the following table:—

Diseases or Defects	Number of Diseases or Defects		
	Boys	Girls	Totals
Squint	68	62	130
Errors of refraction—			
Hypermetropia	211	268	479
Myopia	107	124	231
Astigmatism—			
Hypermetropic	261	321	582
Myopic	88	119	207
Mixed	52	74	126
Conjunctivitis	62	56	118
Phlyctenular conjunctivitis	8	9	17
Blepharitis	35	51	86
Dacryocystitis	1	3	4
Interstitial keratitis	2	3	5
Leucoma adhaerens	—	2	2
Corneal ulcer	5	2	7
Corneal nebulae	13	12	25
Nystagmus	8	4	12
Injury to eye	4	—	4
Meibomian cyst	1	1	2
Cellulitis of eyelid	2	2	4
Ptosis	2	2	4
Foreign body	—	1	1
Cataract—Congenital	3	6	9
—Traumatic	2	1	3
Lachrymal abscess	1	—	1
Synechia	2	2	4
Epicanthus	1	1	2
Totals	939	1,126	2,065

Nose and Throat Defects.—Children suffering from nose or throat defects who are found to require treatment are specially examined at the school clinics, and those found to need operative treatment are admitted to Llandough Hospital—the Cardiff Municipal General Hospital. The children are admitted to hospital the day before the operation and, if well enough, are discharged the day following the operation. Owing to the long distance of Llandough Hospital from the centre of the city, the children are conveyed to and fro by motor ambulance. The number of defects treated at the clinic or hospital was 834, of which 236 were treated by operation (48 enlarged tonsils only, eight adenoids only and 180 enlarged tonsils and adenoids.)

Ear Disease and Defective Hearing.—The treatment of ear diseases or defects is carried out at the school clinics by or under the supervision of the medical officers. Many of the cases of otorrhoea are treated by zinc ionisation. Altogether, the number of defects treated at the clinics was 450 (included in the figures regarding the treatment of minor ailments given on page 171).

An audiometer is used for specially testing the hearing of children. The instrument is similar to a gramophone in operation, but has a number of headphones attached to it. Thirty-two children can be uniformly tested together. One 'phone is placed on the ear at a time, each ear being tested separately. The children record on a specially prepared form what they hear of a series of numbers which are transmitted in a measured gradation of loudness and the numbers not recorded, being those not heard, form the measure of the defect of hearing.

An occasional school session a week has been given to the work, and the results are shown in the following statement :—

Number of children tested at school with audiometer	1,521
Number of children retested	610
Number found defective after retesting :—	
Defective in one ear	155
Defective in both ears	106
	261
Number subsequently examined at school clinics :—	
Found to be normal	59
Found to be normal after treatment	30
Improved after treatment	1
Further treatment required	14
Unlikely to benefit further	1
	105
Number awaiting examination at school clinics :—	
Failed to attend at first appointment	42
Awaiting appointment	64
	106
Number who refused to attend school clinics	50

The incidence of hearing defects found is higher than in 1934—17·1 per cent., as against 11·9 per cent. This is due to the tests being carried out in schools near noisy traffic. Of the children found defective, 56 per cent. who were persuaded to present themselves for subsequent examination at the school clinics showed normal hearing. This points to the necessity of the tests being undertaken in a sound-proof room if they are to be really satisfactory.

Dental Defects.—Dental inspection of children at the schools and treatment at the school clinics are undertaken by four school dentists, but the present staff is insufficient to carry out all the work requiring to be done. Not only is the number of staff insufficient but the present clinic accommodation is inadequate for the provision of further facilities for treatment.

Particulars of the work done during 1935 will be found on page 173. The total number of elementary school children inspected by the dentists was 23,405, of whom 17,233 were found to require treatment. The number of children who were treated was 7,679, 3,305 of whom had previously received treatment.

Orthopaedic and Postural Defects.—The orthopaedic clinic was transferred from the Central Clinic to more convenient and satisfactory premises at the City Lodge on 27th August, 1935. The new clinic premises, which were specially adapted for the purpose, consist of a waiting room, treatment room, dressing room and remedial exercise room, with adequate lavatory accommodation. The clinic is closely associated with a fracture unit which has been established by the Health Committee at the City Lodge with the consent and co-operation of the Public Assistance Committee. There is a medical officer on the staff of the department who specialises in dealing with children suffering from crippling defects and, in addition, a specialist orthopaedic surgeon is engaged in a consultative capacity. Children requiring indoor hospital treatment are admitted to the Prince of Wales Hospital—a voluntary orthopaedic hospital—and all the appliances required by children attending the clinic are provided through that institution.

The following is a summary of the work carried out at the orthopaedic clinic during 1935 :—

	Children of School Age.
<i>Consultation Clinic :—</i>	
Examined for first time	324
Recommended for treatment and/or appliances for first time	194
Recommended for further treatment and/or appliances	230
<i>Recommendations for :—</i>	
Treatment in Hospital	32
Treatment at Clinic (Special and Routine)	210
Appliances	26
Alterations to appliances	12
Special boots	11
Alterations to boots	132
Other forms of treatment	22
Treated at Clinic for first time	6
Attendances at Clinic....	1,002
<i>Routine treatment (massage, electricity, exercises, etc.) :—</i>	
Treated at Clinic for first time	145
Attendances for routine treatment	4,241

The following statement relates to treatment at and provision of appliances, etc., through the Prince of Wales' Hospital, Cardiff, during 1935 :—

	Children of School Age.
<i>Hospital treatment :—</i>	
Admitted to Prince of Wales' Hospital—	
(a) Day cases	1
(b) Other cases	21
Under treatment at Prince of Wales' Hospital at end of 1935	3
On Prince of Wales' Hospital waiting list at end of 1935—	
(a) Day cases	—
(b) Other cases	6
<i>Other treatment or provision (including appliances, etc., provided following hospital treatment) :—</i>	
Appliances provided	63
Appliances altered	36
Special boots provided	8
Alterations to boots	166
Other forms of treatment provided	16

The diseases or defects found in children of school age examined at the clinic for the first time during the year have been classified as follows :—

<i>Diseases or Defects.</i>	<i>Number.</i>
Defective posture	100
Scoliosis	29
Flat feet	65
Bow legs	3
Talipes	3
Poliomyelitis	3
Spastic paralysis	2
Congenital malformation or defect	6
Torticollis	3
Knock knee	21
Metatarsus varus and intoeing	5
Claw feet	2
Tuberculous disease	3
Trauma	8
Other defects	74
Total	327

The following is a classification of the cases discharged during the year :—

<i>Reason.</i>	<i>Number.</i>
Cured	110
Improved	42
Unlikely to benefit further	15
Left the district	12
Failed to attend for treatment	75
Over school age	42
Other reasons (including trivial defects)	75
Total	371

Heart Disease and Rheumatism.—School children suffering from heart disease and rheumatism are kept under close supervision at special rheumatism clinics. Cases of acute rheumatism are admitted to the Lord Pontypridd Hospital (Dulwich House)—a hospital of 25 beds which is specially reserved for the purpose and which is under the control of the Health Committee of the City Council. Details of the work undertaken at the clinics and at the hospital are contained in the report on the general health service. The number of school children remaining under supervision at the end of the year was 1,673, a decrease of 14 compared with the number at the end of the previous year.

Tuberculosis.—The department co-operates closely with the Tuberculosis Institute of the Welsh National Memorial Association, by which body the treatment of tuberculosis is undertaken, all cases of tuberculosis and suspected tuberculosis being referred to the Tuberculosis Physician for diagnosis and/or treatment.

Other Defects and Diseases.—Children found to be suffering from minor defects or diseases not already mentioned are referred for special examination at the school clinics, where parents receive advice as to the treatment required, and in some instances suitable remedies are provided at the clinics. Children suffering from defects or diseases for the treatment of which no special provision has been made are visited by school nurses, who advise the parents as to appropriate means of obtaining treatment.

Radiography.—Radiography is carried out by the department. During the year 75 school children were referred from the clinics to be radiographed, the total number of radiograms taken being 137. Eighty-two parts of the body required X-ray examination in the 75 cases as follows :—

Teeth	....	....	....	....	4
Ribs	....	....	....	....	1
Spine	....	....	....	....	19
Shoulder	....	....	....	....	1
Arm	....	....	....	....	6
Elbow	....	....	....	....	4
Wrist	....	....	....	....	9
Hand	....	....	....	....	7
Hip	....	....	....	....	8
Knee	....	....	....	....	7
Thigh	....	....	....	....	3
Leg	....	....	....	....	5
Foot	....	....	....	....	8
Total					82

VIII.—INFECTIOUS DISEASES.

Constant and special attention is paid to preventing the spread of both notifiable and non-notifiable infectious diseases amongst school children. As soon as notifiable diseases, such as scarlet fever and diphtheria, come to the knowledge of the department the homes of the patients are visited by an officer of the general health service section and arrangements are made for the isolation of the patients, either at the Isolation Hospital or in their own homes. Nearly all cases of diphtheria, however, are admitted to the Hospital. All children who have been in contact with cases of notifiable infectious diseases are excluded from school for the prescribed periods by means of exclusion certificates, copies of which are sent to the schools and to school attendance officers, re-admission certificates also being sent in due course. Active immunization of school children, especially of those in infants' schools, is undertaken as time and opportunity allow. Head teachers are supplied with tabular statements showing the period of exclusion from school of patients and contacts in all infectious diseases. An arrangement is also in operation whereby the names and addresses of school children who are absent from school on account of non-notifiable diseases, such as measles, chickenpox, whooping cough and mumps, are supplied on appropriate forms in order that they may be visited by officers of the department with a view to preventing the spread of infection as far as possible.

The numbers of school children notified to be suffering from various infectious diseases during the year were as follows :—

Scarlet fever	....	....	....	....	231
Diphtheria	....	....	....	....	208
Enteric fever	....	....	....	....	1

Pneumonia	....	....	....	....	21
Cerebro-spinal fever	....	....	....	....	2
Dysentery	....	....	....	....	2
Erysipelas	....	....	....	....	4
Tuberculosis—Respiratory	....	....	....	....	14
„ —Other forms	....	....	....	....	36

The following cases of non-notifiable infectious diseases were intimated by head teachers or school attendance officers, or were otherwise ascertained :—

Chickenpox	....	....	....	....	189
Measles	....	....	....	....	1,264
Rubella	....	....	....	....	8
Whooping cough	....	....	....	....	116
Mumps	....	....	....	....	55

Vaccinal State of School Children.—Of 11,692 elementary and high school children inspected at routine inspection during 1935, 5,882, or 50·3 per cent., were found to be vaccinated. During the ten years 1926-35 the proportion of children inspected who were found to have been vaccinated has declined from 61·6 per cent. to 50·3 per cent., as follows :—

<i>Year.</i>					<i>Percentage Vaccinated.</i>
1926	....	....	....	....	61·6
1927	....	....	....	....	60·8
1928	....	....	....	....	60·9
1929	....	....	....	....	56·4
1930	....	....	....	....	57·4
1931	....	....	....	....	56·1
1932	....	....	....	....	58·1
1933	....	....	....	....	54·5
1934	....	....	....	....	52·6
1935	....	....	....	....	50·3

IX.—OPEN-AIR EDUCATION.

At schools where there are suitable facilities, classes are held in the playgrounds during appropriate weather ; at several schools a special feature is made of these playground classes. Children from other schools are taken to the public parks for certain lessons during the summer. Excursions are sometimes arranged by schools to places of educational interest in various parts of the country. Educational visits are also made to local institutions and buildings.

X.—PHYSICAL TRAINING.

For many years there has been a whole-time female organiser of physical training for girls' and infants' schools. Special attention is given by the organiser to the arrangement of organised games, such as netball and rounders, and to the teaching of swimming and national and folk dancing. Courses of instruction in physical education for teachers of girls' and infants' schools are conducted by the organiser annually. Teachers generally show great interest in the subject and the courses are well attended.

A male organiser of physical training for boys has been appointed. He took up his duties on 1st September, 1935, and as a result, the organisation of physical training for boys is now receiving the same attention that has hitherto been given to the subject in girls' and infants' schools.

XI.—PROVISION OF MEALS.

Necessitous school children are supplied with dinners by contract at 17 canteens in various parts of the city. During the year the average number of children provided with dinners daily was 2,351. A ration of pasteurised milk is supplied at the schools instead of breakfast. The average number of necessitous children provided with milk free of charge daily was 3,475.

In addition, arrangements have been made for children, whose parents are willing to bear the cost, to be supplied with milk at school, the average number of children who received milk daily under these arrangements during the year being 10,118.

The daily ration of milk supplied free is half-a-pint for children over 8 years of age and one-third pint for younger children. Under the voluntary arrangement one-third of a pint is supplied to children of all ages.

XII.—CO-OPERATION OF PARENTS, TEACHERS, SCHOOL ATTENDANCE OFFICERS AND VOLUNTARY BODIES.

Parents.—Parents generally take an interest in the facilities provided for medical inspection and treatment, and follow the advice given as to the care of their children's health. They are invited by notices to attend the inspections that take place at school and many of them accompany their children to the school clinics.

Teachers.—Teachers co-operate in the work that is undertaken, and the help they render in preparing the medical and dental inspection schedules and in marshalling the children for inspection is of very great assistance. Head teachers are supplied with lists of children who are recommended for treatment and they co-operate in ensuring that it is obtained. They also co-operate in the arrangement for notifying the department of the names and addresses of children who require special attention and of children who are absent from school by reason of non-notifiable infectious diseases.

School Attendance Officers.—There is very close co-operation on the part of school attendance officers, whose willing assistance is invaluable to the school medical service staff. Many children requiring attention come to the knowledge of the department through them, and they render useful service in dealing with negligent parents whose children fail to keep appointments at the clinics.

Voluntary Bodies.—Voluntary bodies concerned with the welfare of school children also co-operate closely in the work. The arrangement whereby the Queen's Institute of District Nursing carries out the treatment of minor ailments at the homes of the children, which has been in force for many years, continues to work smoothly, and full value is obtained for the annual grant of £100 which is paid to the Institute for its services. Details of the work undertaken by the Institute during 1935 are given on page 151. Inspectors of the National Society for the Prevention of Cruelty to Children always deal promptly with cases of parental neglect that are referred to them. Senior school children—boys and girls—who are provided with holidays at seaside homes by two voluntary bodies are selected from amongst delicate children who are known to the department.

XIII.—BLIND, DEAF, DEFECTIVE AND EPILEPTIC CHILDREN.

Blind, deaf, defective and epileptic children come to the knowledge of the department through various channels, but they are ascertained mainly through routine medical inspection at schools and through notification by head teachers and school attendance officers. The numbers of such children who are known to the department are given in detail in the return on pages 168 to 170.

Mentally Defective Children.—It will be seen from the return referred to that the number of mentally defective children, who were not transferable to the Mental Deficiency Authority, was 125, of whom 110 were attending the special day school and

one was in a residential institution. The remaining 14 children are supervised at home by officers of the department. There were also 10 children who, in addition to being mentally defective, suffered from serious physical defects ; three of these were also in attendance at the special day school.

During the year, 61 children suspected to be mentally defective were specially examined or re-examined. The results are classified as follows :—

Feeble-minded and suitable for education in a special school	26
Transferred to the care of the Mental Deficiency Authority	4
Dull and/or backward	21
Backward and unstable	1
Unstable and neurotic	1
Dementia praecox	1
Mentally and physically defective	2
Physically defective only	3
Normal	2
Total	61

Altogether, 29 children were notified to the Mental Deficiency Authority during 1935 particulars of whom are classified in the following table :—

Diagnosis	Boys	Girls	Totals
1. (i) Children incapable of receiving benefit or further benefit from instruction in a Special School :—			
(a) Idiots	—	1	1
(b) Imbeciles	3	1	4
(c) Others	5	1	6
(ii) Children unable to be instructed in a Special School without detriment to the interests of other children :—			
(a) Moral Defectives	—	—	—
(b) Others	—	1	1
2. Feeble-minded children notified on leaving a Special School on or before attaining the age of 16	9	8	17
3. Feeble-minded children notified under Article 3 of the 1928 Regulations, i.e., " special circumstances " cases	—	—	—
4. Children who in addition to being mentally defective were blind or deaf	—	—	—
Totals	17	12	29

Mentally Retarded Children.—A special class for mentally retarded children, known as the "delta" class, is held at one of the elementary schools. Children, regarding whose mental condition there is some doubt, are admitted to the class from the elementary schools. They are examined periodically by a medical officer of the department to decide as to the form of education for which they are most suitable. Children who make sufficient progress are allowed to return to ordinary elementary schools, while others are found to be feeble-minded and admitted to the special day school. At the end of the year 15 children (12 boys and three girls) were in attendance at the class.

Special Schools.—There are special day schools for mentally defective, blind (including partially blind), deaf and physically defective children, the numbers in attendance being given in the return on pages 168 to 170. The children attending these schools are regularly inspected and closely supervised by medical officers of the department.

Greenhill Open-Air School.—The number of physically defective children on the register at the end of 1935 was 127, and the average attendance during the year—excluding August—was 107. One-hundred and two children (53 boys and 49 girls) were admitted to the school, and 114 (67 boys and 47 girls) were discharged. The following are the principal diseases or defects found in the children admitted during the year :—

<i>Diseases or Defects.</i>	<i>Number.</i>
Anaemia	14
Malnutrition	27
Anaemia and malnutrition	19
Cervical adenitis	3
Quiescent tuberculosis (pulmonary)	1
" " (non-pulmonary)	2
Post-rheumatic debility	8
Post-pneumonic debility	15
Post-influenzal debility	1
Asthma	3
Anorexia	6
Post-operative debility	3
Total	102

Fourteen of these children had previously shown clinical signs suggestive of tuberculosis, but at the time of admission none of them suffered from active tuberculosis. There was a history of tuberculosis in the parents or brothers and/or sisters in 12 of the children admitted.

The following table shows the average increases in weight and height of 109 of the 114 children who were discharged from the school during 1935. The remaining five children attended for periods of less than three months.

Average Period in School (Months)	Number of Children in Group	Average Age on Discharge (Years)	Average gain in Weight (Pounds)	Average gain in Height (Inches)
3	14	9.97	1.50	0.07
6	3	8.37	1.92	0.17
9	12	10.76	5.08	1.35
12	15	11.32	6.23	1.57
15	13	9.97	7.83	2.67
18	23	10.62	9.29	2.75
21	9	9.83	11.45	2.90
24	14	9.37	11.77	3.08
27	1	8.86	6.50	2.00
30	2	9.05	10.00	4.25
33	1	9.83	16.00	6.00
36	1	13.75	13.75	5.50
60	1	15.00	16.25	7.75

XIV.—FULL-TIME COURSES OF HIGHER EDUCATION FOR BLIND, DEAF, DEFECTIVE AND EPILEPTIC STUDENTS.

No special courses of higher education for blind, deaf, defective or epileptic students have been arranged, but suitable blind students receive special training at the Cardiff Institute for the Blind or at residential institutions elsewhere at the cost of the Education Authority. At the Institute for the Blind males are taught to make baskets, mats, cork ship-fenders, brushes and coal bags, and females are taught knitting, weaving, chair-caning and light basket-making. At the end of the year there were 11 blind persons (nine males and two females) for whose training the Education Authority had accepted chargeability.

XV.—NURSERY SCHOOLS.

No nursery school has yet been provided, but the advisability of establishing such a school is being considered. A site in Canton municipal ward has been reserved for educational purposes and this may be utilised for the erection of a nursery school. The possible requirements of other municipal wards are being reviewed and a comprehensive scheme of nursery school development is being prepared.

XVI.—SECONDARY SCHOOLS AND OTHER INSTITUTIONS OF HIGHER EDUCATION.

Eight high schools have been provided by the Education authority (four for boys and four for girls), for the pupils of which all the facilities of the school medical service are available. There are also a secondary school for boys and two secondary schools for girls aided by the Authority, and arrangements have been made for the medical inspection and treatment of pupils attending the school for boys and one of the schools for girls. High and secondary school pupils are medically inspected on entering and prior to leaving school. Particulars of the number of pupils inspected, the findings of inspection and of the treatment undertaken are contained in the statistical tables on pages 174 to 178.

XVII.—PARENTS' PAYMENTS.

Parents of school children receiving certain forms of treatment provided through the school medical service are required to pay according to an approved scale of family income, but free treatment is provided in the case of children belonging to families whose incomes are below the scale. The forms of treatment for which charges are made are nose and throat operations, in-patient orthopaedic treatment and dental treatment. Charges are also made for orthopaedic appliances and for spectacles. Application forms are required to be filled in and signed by parents, who, unless willing to pay the full charge, are required to supply complete particulars of their incomes from all sources. The charges for dental treatment are payable at the time of treatment and the cost of spectacles before they are supplied, all other payments being collected by collectors employed by the City Council after accounts have been rendered.

XVIII.—HEALTH EDUCATION.

Every opportunity is taken by medical officers and school nurses to disseminate knowledge amongst the parents of children with whom they come into contact on the means of protecting the health of their children, and school dentists give talks on the care of teeth to children at school at the time of routine inspection. As stated in the last report, copies of the Board of Education Handbook of Suggestions on Health Education have been supplied to all head teachers of elementary schools, and generally there is much evidence that the subject receives careful attention in the schools. In connection with Health Week, 1935, appropriate health literature was circulated amongst all the children at elementary schools. Some 35,000 illustrated books, painting books and leaflets appropriate to the various ages of the children were distributed in this way.

An essay competition for school children was also arranged, 20 prizes to the total value of £5 10s. 0d. being offered. The title of the essay, which had to be written in school, was "How to be Healthy." Head teachers were required to select not more than two essays considered by them to be the best, having regard to the relative ages of the competitors, for submission to the adjudicators, and altogether 105 essays were received—41 by boys and 64 by girls. The essays contained abundant evidence of the extent to which elementary school children have acquired a sound knowledge of health and cleanliness. The cost of all health propaganda is defrayed by the Health Committee of the City Council.

XIX.—SPECIAL INQUIRIES.

No special inquiries were conducted by members of the school medical service staff during the year, but Dr. Cecil W. Anderson has written a special report on the rheumatism supervisory scheme, which is contained in the report on the general health service.

XX.—MISCELLANEOUS.

Medical Examination of Teachers.—The number of newly appointed and other teachers examined by the medical staff was 16 (eight males and eight females).

Juvenile Employment.—Thirteen children (four boys and nine girls) were medically examined on the request of the Juvenile Employment (Education) Officer as to suitability and fitness for employment and 57 children (five boys and 52 girls) were examined in connection with the issue of entertainment licences.

Junior Instruction Centres.—There are two Junior Instruction Centres (one for males and one for females) and arrangements have been made through the school medical service for the special inspection and treatment of the pupils in attendance who are not entitled to benefit or treatment under the National Health Insurance Acts. During the year, 161 pupils (53 boys and 108 girls) were medically inspected, of whom 61, or 37·9 per cent., were found to require treatment (excluding uncleanness and dental diseases). Forty of those found to require medical treatment were dealt with at the school clinics (minor ailments 16, defective vision 21 and nose and throat defects three). The number who received dental treatment at the clinics was 48.

Classes for Speech Training.—The special classes for speech training opened at the beginning of the year with the names of 65 children on the registers. The number of children admitted during the year was 47, the total number of individual cases dealt with being 112. Fifty-one children were discharged, four of them on account of irregular attendance, two having left school and six for other reasons. The classification on discharge of the remaining 39 cases was as follows :—

Provisionally cured	....	....	....	....	12
Very much improved	....	....	....	....	9
Much improved	....	....	....	....	6
Improved	....	....	....	....	9
Unlikely to benefit further	....	....	....	....	3
					—
Total	....	....	....	....	39
					—

As usual, at the close of each term, head teachers were asked to supply reports on the progress made, in their opinion, by children attending the classes. The following is a summary of the reports received :—

	<i>1st Term.</i>	<i>2nd Term.</i>	<i>3rd Term.</i>
Cured	1	1	1
Much improved	18	13	22
Improved	45	54	34
Not improved	22	16	16
Worse	—	—	1
No definite report	3	—	6
Totals	89	84	80

Head teachers also supplied reports at the end of the year on 40 scholars who had passed through the special classes and who were still attending school. These reports are summarised as follows :—

Cured	3
Much improved	13
Improved	12
Not improved	7
No definite report	5
Total	40

The instructress continued to visit the schools and homes of children attending the special classes and to make after-care visits to children who had left school. She made, altogether, 226 visits to schools and to the homes of children in attendance and of those who had attended the classes but had since left school. The condition of the speech of 66 of the cases to whom after-care visits were made is summarised as follows :—

Cured	17
Improved	25
Improvement maintained	16
No improvement....	2
Relapsed	6
Total	66

Child Guidance Clinic.—A Child Guidance Clinic was established in October, 1935. It is held at Gabalfa School Clinic, where three rooms have been allocated and equipped for the purpose, one afternoon session weekly being devoted to the clinical work involved. The staff consists of an Honorary Director (Dr. P. K. McCowan), a part-time Psychiatrist (Dr. J. Walker), a part-time Psychologist (Dr. G. Seth) and a whole-time Social Worker (at first Miss F. Meredith and later Miss K. Howland), the Deputy School Medical Officer acting as Medical Secretary. The following is a summary of the work of the clinic during October—December, 1935 :—

(1) Number of patients dealt with :—

Boys	12
Girls	8
Total	20

(2) Sources of ascertainment of the patients :—

Juvenile Courts	1
Schools	7
School Medical Service	11
Other sources	1
Total	20

(3) Problems for which the patients were referred to the Clinic :—

Backwardness	8
Stealing	5
Nervousness	3
Difficult and/or unmanageable	4
Temper	1
Enuresis	1
Speech difficulties	5
Lying	1
Sex difficulties	1
Vocational guidance	2
Restlessness and sleeplessness	1
Screaming	1
Spitefulness	1
Defiance	1
Nervous movements	1
Anxiety	1
Feeding difficulties	1
Unwilling to attend school	1
Lack of concentration	3
Timidity	1
Total	43

(4) Ages of the patients dealt with :—

<i>Years.</i>	<i>Boys.</i>	<i>Girls.</i>	<i>Totals.</i>
4	1	—	1
5	1	1	2
8	2	2	4
9	1	—	1
10	1	—	1
11	1	2	3
12	2	1	3
13	2	1	3
14	1	1	2
Totals	12	8	20

(5) How the patients were dealt with :—

Service of Clinic	17
Diagnosed only	3
	—
Total	20
	—

(6) Results of treatment of patients discharged :—

Transferred to other agencies	3
Unsuitable for further treatment	4
	—
Total	7
	—

(7) Number of patients waiting to be dealt with at end of the year :—

Boys	13
Girls	16
	—
Total	29
	—

(8) Work of Sections :—

(a) *Psychiatric*.—

New patients dealt with	18
Re-examinations	11
Interviews with parents	12

(b) *Psychological*.—

New patients dealt with	17
Re-examinations	2
Interviews with parents	6

(c) *Social Service*.—

Interviews with parents, etc., at Clinic or at home of patients	67
Other visits concerning patients	47

(9) Staff conferences regarding patients 9

(10) Propaganda :—

Lectures by Social Worker	8
„ „ Psychologist	2

XXI.—STATISTICAL TABLES.

ELEMENTARY SCHOOLS.

TABLE I.

RETURN OF MEDICAL INSPECTIONS.

A.—ROUTINE MEDICAL INSPECTIONS.

Number of inspections in the prescribed Groups :—			
Entrants (within 12 months of admission)	....		3,257
Second Age Group (8 to 9 years)	....	....	4,204
Third Age Group (over 12 years)	....	....	2,790
Total			10,251
<hr/>			
Number of other Routine Inspections	....	....	201
Grand Total			10,452
<hr/>			

B.—OTHER INSPECTIONS.

Number of Special Inspections	6,181
Number of Re-inspections....	7,848
Total			14,029
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C.—CHILDREN FOUND TO REQUIRE TREATMENT.

Number of individual children found at routine medical inspection to require treatment (excluding uncleanness and dental diseases) :—

Prescribed Groups.—

Entrants (within 12 months of admission)	....		593
Second Age Group (8 to 9 years)	....	....	936
Third Age Group (over 12 years)	628
Total			2,157
Other Routine Inspections	32
Grand Total			2,189
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ELEMENTARY SCHOOLS.

TABLE II.

A.—RETURN OF DEFECTS FOUND BY MEDICAL INSPECTION.

DEFECT OR DISEASE		ROUTINE INSPECTIONS		SPECIAL INSPECTIONS	
		No. of Defects		No. of Defects	
		Requiring Treatment	Requiring to be kept under observation, but not requiring Treatment	Requiring Treatment	Requiring to be kept under observation, but not requiring Treatment
Skin	(1) Ringworm—Scalp	1	—	20	—
	(2) „ Body	7	—	68	—
	(3) Scabies	40	—	186	—
	(4) Impetigo	57	—	864	—
	(5) Other Diseases (Non-Tuberculous)	51	14	272	11
Total (Heads 1 to 5)		156	14	1,410	11
Eye	(6) Blepharitis	41	3	36	—
	(7) Conjunctivitis	3	—	14	—
	(8) Keratitis	—	—	7	—
	(9) Corneal Opacities	5	1	4	1
	(10) Other Conditions (excluding Defective Vision and Squint)	15	2	45	7
Total (Heads 6 to 10)		64	6	106	8
Ear	(11) Defective Vision (excluding Squint)	597	114	125	6
	(12) Squint	89	6	13	—
	(13) Defective Hearing	49	16	62	8
	(14) Otitis Media	99	6	95	3
	(15) Other Ear Diseases	66	7	53	7
Nose and Throat	(16) Chronic Tonsillitis only	284	378	138	60
	(17) Adenoids only	25	8	17	3
	(18) Chronic Tonsillitis and Adenoids	155	42	55	17
	(19) Other Conditions	84	22	140	29
	(20) Enlarged Cervical Glands (Non-Tuberculous)	27	27	60	19
Heart and Circulation	(21) Defective Speech	10	11	16	6
	Heart Disease :—				
	(22) Organic	51	134	46	89
	(23) Functional	33	170	18	52
	(24) Anaemia	64	39	118	14
Lungs	(25) Bronchitis	68	51	52	36
	(26) Other Non-Tuberculous Diseases	51	218	112	100
	Pulmonary :—				
	(27) Definite	—	—	2	—
	(28) Suspected	6	10	17	15
Tuberculosis	Non-Pulmonary :—				
	(29) Glands	—	—	12	5
	(30) Bones and Joints	—	1	8	—
	(31) Skin	—	—	—	—
	(32) Other Forms	—	2	—	—
Total (Heads 29 to 32)		—	3	20	5
Nervous System	(33) Epilepsy	5	11	11	7
	(34) Chorea	16	11	38	11
	(35) Other Conditions	46	25	60	42
	(36) Rickets	1	—	1	—
	(37) Spinal Curvature	21	4	4	1
Deformities	(38) Other Forms	111	19	35	7
	(39) Other Defects and Diseases (excluding Uncleanliness and Dental Diseases)	405	279	811	376
Total		2,583	1,631	3,635	932

B,—CLASSIFICATION OF THE NUTRITION OF CHILDREN INSPECTED DURING THE YEAR IN THE ROUTINE AGE GROUPS.

AGE GROUPS	Number of Children Inspected	Excellent		Normal		Slightly Sub-normal		Bad	
		Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Entrants (within 12 months of admission)	3,257	108	3.3	2,983	91.6	110	3.4	56	1.7
Second Age Group (8 to 9 years)	4,204	142	3.4	3,641	86.6	279	6.6	142	3.4
Third Age Group (over 12 years)	2,790	136	4.9	2,399	86.0	222	7.9	33	1.2
Other Routine Inspections	201	8	4.0	173	86.0	16	8.0	4	2.0
Total	10,452	394	3.8	9,196	88.0	627	6.0	235	2.2

TABLE III.

RETURN OF ALL EXCEPTIONAL CHILDREN IN THE AREA.

(NO CHILD ENTERED UNDER MORE THAN ONE HEADING).

BLIND CHILDREN.

At Certified Schools for the Blind	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
7	—	—	—	7

PARTIALLY SIGHTED CHILDREN.

At Certified Schools for the Blind	At Certified Schools for the Partially Sighted	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
—	34	6	—	—	40

DEAF CHILDREN.

At Certified Schools for the Deaf	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
25	—	—	—	25

PARTIALLY DEAF CHILDREN.

At Certified Schools for the Deaf	At Certified Schools for the Partially Deaf	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
—	—	6	—	—	6

MENTALLY DEFECTIVE CHILDREN.
FEEBLEMINDED CHILDREN.

At Certified Schools for Mentally Defective Children	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
110	—	1	14	125

EPILEPTIC CHILDREN.
CHILDREN SUFFERING FROM SEVERE EPILEPSY.

At Certified Special Schools	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
2	4	—	1	7

PHYSICALLY DEFECTIVE CHILDREN.

A.—TUBERCULOUS CHILDREN.

I.—CHILDREN SUFFERING FROM PULMONARY TUBERCULOSIS.
(Including pleura and intra-thoracic glands).

At Certified Special Schools	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
4	—	—	6	10

II.—CHILDREN SUFFERING FROM NON-PULMONARY TUBERCULOSIS.
(Tuberculosis of all sites other than those shown in I above).

At Certified Special Schools	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
10	—	5	9	24

B.—DELICATE CHILDREN.

Children—except those included in other groups—whose general health renders it desirable that they should be specially selected for admission to an open-air school).

At Certified Special Schools	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
127	78	—	—	205

C.—CRIPPLED CHILDREN.

Children—other than those diagnosed as tuberculous and in need of treatment for that disease—who are suffering from a degree of crippling sufficiently severe to interfere materially with a child's normal mode of life).

At Certified Special Schools	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
2	41	—	6	49

D.—CHILDREN WITH HEART DISEASE.

(Children whose defect is so severe as to necessitate the provision of educational facilities other than those of the Public Elementary School).

At Certified Special Schools	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
21	29*	7	12	69

CHILDREN SUFFERING FROM MULTIPLE DEFECTS.

Combination of Defect	At Certified Special Schools	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
Mentally defective and crippled	2	—	1	1	4
Mentally defective and blind	—	—	—	1	1
Mentally defective and epileptic	1	—	—	4	5

* Including children with major heart manifestations who attend school only when fit to do so.

ELEMENTARY SCHOOLS.

TABLE IV.

TREATMENT TABLES.

GROUP I.—Minor Ailments (excluding Uncleanliness, for which see Table VI).

DEFECT OR DISEASE	Number of Defects treated or under treatment during the year		
	Under the Authority's Scheme	Otherwise	Total
SKIN :—			
Ringworm—Scalp—			
(i) X-ray Treatment	3	—	3
(ii) Other	7	—	7
Ringworm—Body	67	1	68
Scabies	189	5	194
Impetigo	890	34	924
Other Skin Disease	235	10	245
MINOR EYE DEFECTS :—			
(External and other, but excluding cases falling in Group II)	23	4	27
MINOR EAR DEFECTS	450	5	455
MISCELLANEOUS (<i>i.e.</i> , minor injuries, bruises, sores, chilblains, etc.) ...	128	105	233
Total	1,992	164	2,156

GROUP II.—Defective Vision and Squint (excluding Minor Eye Defects treated as Minor Ailments—Group I).

DEFECT OR DISEASE	Number of Defects dealt with		
	Under the Authority's Scheme	Otherwise	Total
Errors of Refraction (including Squint)	1,449	4	1,453
Other Defect or Disease of the Eyes (excluding those recorded in Group I)	256	—	256
Total	1,705	4	1,709

DEFECT OF DISEASE	Number of Children for whom Spectacles were			
	Prescribed		Obtained	
	Under the Authority's Scheme	Otherwise	Under the Authority's Scheme	Otherwise
Errors of Refraction (including Squint)	1,381	4	1,344*	4

* Including 530 free of charge.

GROUP III.—Treatment of Defects of Nose and Throat.

	Number of Defects			
	Tonsils only	Adenoids only	Tonsils and Adenoids	Other Defects
Received Operative Treatment— Under the Authority's Scheme, in Clinic or Hospital	48	8	174	—
By Private Practitioner or Hospital, apart from the Authority's Scheme	—	—	6	—
Total	48	8	180	—
Received other forms of treatment	598*			
Total number treated	834			

* Including 3 also treated by operation.

GROUP IV.—Orthopaedic and Postural Defects.

	Under the Authority's Scheme			Otherwise			Total number treated
	Residential treatment with education	Residential treatment without education	Non-residential treatment at an orthopaedic clinic	Residential treatment with education	Residential treatment without education	Non-residential treatment at an orthopaedic clinic	
Number of children treated	22	—	393	—	—	—	415

TABLE V.

DENTAL INSPECTION AND TREATMENT.

(1) Number of Children inspected by the Dentists :—

(a) Routine Age-groups	<i>Aged</i>			
	3	....	168	
	4	....	802	
	5	....	1,752	
	6	....	2,105	
	7	....	2,398	
	8	....	2,412	
	9	....	2,484	Total 22,337
	10	....	2,591	
	11	....	2,448	
	12	....	2,162	
	13	....	1,895	
	14	....	1,066	
	15	....	54	
(b) Specials	....	....	....	1,068

Grand Total 23,405

(2) Found to require treatment 17,233

(3) Actually treated 7,679*

(4) Attendances made by children for treatment 13,535

(5) Half-days devoted to :—

Inspection	....	....	....	....	111
Treatment	....	....	....	....	1,561

Total 1,672

(6) Fillings :—

Permanent teeth	....	....	....	....	4,987
Temporary teeth	....	....	....	....	315

Total 5,302

(7) Extractions :—

Permanent teeth	....	....	....	....	4,084
Temporary teeth	....	....	....	....	17,529

Total 21,613

(8) Administrations of general anaesthetics for extractions 7,511

(9) Other operations :—

Permanent teeth	....	....	....	....	1,443
Temporary teeth	....	....	....	....	3

Total 1,446

* Including 3,305 who had received treatment previously.

TABLE VI.

UNCLEANLINESS AND VERMINOUS CONDITIONS.

(i)	Average number of visits per school made during the year by the School Nurses	....	....	2.2
(ii)	Total number of examinations of children in the schools by School Nurses	....	....	39,484
(iii)	Number of individual children found unclean	....	....	1,914
(iv)	Number of children cleansed under arrangements made by the Local Education Authority	....	....	180
(v)	Number of cases in which legal proceedings were taken :—			
	(a) Under the Education Act, 1921	....	....	—
	(b) Under School Attendance Byelaws	....	....	—

SECONDARY AND HIGH SCHOOLS.

TABLE I.

RETURN OF MEDICAL INSPECTIONS.

A.—ROUTINE MEDICAL INSPECTIONS.

Number of Routine Inspections	1,441
-------------------------------	------	------	-------

B.—OTHER INSPECTIONS.

Number of Special Inspections	....	....	310
Number of Re-inspections	....	....	450
			—
Total	....	....	760
			—

C.—CHILDREN FOUND TO REQUIRE TREATMENT.

Number of individual children found at routine medical inspection to require treatment (excluding uncleanliness and dental diseases) :—

Routine inspections	223
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SECONDARY AND HIGH SCHOOLS.

TABLE II.

A.—RETURN OF DEFECTS FOUND BY MEDICAL INSPECTION.

DEFECT OR DISEASE		ROUTINE INSPECTIONS		SPECIAL INSPECTIONS	
		No. of Defects		No. of Defects	
		Requiring Treatment	Requiring to be kept under observation, but <i>not</i> requiring Treatment	Requiring Treatment	Requiring to be kept under observation, but <i>not</i> requiring Treatment
Skin	(1) Ringworm—Scalp	—	—	—	—
	(2) " Body	—	—	—	—
	(3) Scabies	3	—	—	—
	(4) Impetigo	—	—	2	—
	(5) Other Diseases (Non-Tuberculous)	2	1	3	1
Total (Heads 1 to 5)		5	1	5	1
Eye	(6) Blepharitis	—	—	1	—
	(7) Conjunctivitis	—	—	1	—
	(8) Keratitis	—	—	—	—
	(9) Corneal Opacities	—	—	—	—
	(10) Other Conditions (excluding Defective Vision and Squint)	—	—	—	—
Total (Heads 6 to 10)		—	—	2	—
Ear	(11) Defective Vision (excluding Squint)	150	10	9	1
	(12) Squint	7	—	—	—
	(13) Defective Hearing	7	—	—	—
	(14) Otitis Media	2	—	—	—
	(15) Other Ear Diseases	1	1	—	—
Nose and Throat	(16) Chronic Tonsillitis only	5	11	5	1
	(17) Adenoids only	—	1	—	—
	(18) Chronic Tonsillitis and Adenoids	—	1	—	—
	(19) Other Conditions	7	—	2	2
	(20) Enlarged Cervical Glands (Non-Tuberculous)	1	—	—	1
(21) Defective Speech		2	—	—	—
Heart and Circulation	Heart Disease :—				
	(22) Organic	2	11	1	4
	(23) Functional	—	22	—	1
	(24) Anaemia.....	9	2	5	1
	(25) Bronchitis	1	1	—	—
Lungs	(26) Other Non-Tuberculous Diseases	2	10	1	1
	Pulmonary :—				
	(27) Definite	—	—	—	—
	(28) Suspected	—	—	—	1
	Non-Pulmonary :—				
Tuberculosis	(29) Glands	—	—	—	—
	(30) Bones and Joints	—	—	—	—
	(31) Skin	—	—	—	—
	(32) Other Forms	—	—	—	—
Total (Heads 29 to 32)		—	—	—	—
Nervous System	(33) Epilepsy	—	—	—	1
	(34) Chorea	—	—	—	—
	(35) Other Conditions	2	3	1	1
	(36) Rickets	—	—	—	—
	(37) Spinal Curvature	3	—	—	—
Deformities	(38) Other Forms	29	4	8	5
	(39) Other Defects and Diseases (excluding Uncleanliness and Dental Diseases) ..	17	17	19	20
Total		252	95	58	41

B.—CLASSIFICATION OF THE NUTRITION OF CHILDREN INSPECTED DURING THE YEAR AT ROUTINE MEDICAL INSPECTION.

Number of Children Inspected	Excellent		Normal		Slightly Sub-normal		Bad	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
1,441	39	2·7	1,344	93·3	38	2·6	20	1·4

SECONDARY AND HIGH SCHOOLS.

TABLE III.

TREATMENT TABLES.

GROUP I.—Minor Ailments (excluding Uncleanliness).

DEFECT OR DISEASE	Number of Defects treated or under treatment during the year		
	Under the Authority's Scheme	Otherwise	Total
SKIN :—			
Ringworm—Scalp—			
(i) X-ray Treatment	—	—	—
(ii) Other	—	—	—
Ringworm—Body	—	—	—
Scabies	—	—	—
Impetigo	1	—	1
Other Skin Disease	5	—	5
MINOR EYE DEFECTS :—			
(External and other, but excluding cases falling in Group II)	—	—	—
MINOR EAR DEFECTS	16	—	16
MISCELLANEOUS (e.g., minor injuries, bruises, sores, chilblains, etc.)....	2	—	2
Total	24	—	24

GROUP II.—Defective Vision and Squint (excluding Minor Eye Defects treated as Minor Ailments—Group I).

DEFECT OR DISEASE	Number of Defects dealt with		
	Under the Authority's Scheme	Otherwise	Total
Errors of Refraction (including Squint)	176	6	182
Other Defect or Disease of the Eyes (excluding those recorded in Group I)	14	—	14
Total	190	6	196

DEFECT OR DISEASE	Number of Children for whom Spectacles were			
	Prescribed		Obtained	
	Under the Authority's Scheme	Otherwise	Under the Authority's Scheme	Otherwise
Errors of Refraction (including Squint)	169	6	163*	6

* Including 5 free of charge.

GROUP III.—Treatment of Defects of Nose and Throat.

	Number of Defects			
	Tonsils only	Adenoids only	Tonsils and Adenoids	Other Defects
Received Operative Treatment— Under the Authority's Scheme, in Clinic or Hospital ...	2	—	1	—
By Private Practitioner or Hospital, apart from the Authority's Scheme	—	—	—	—
Total	2	—	1	—
Received other forms of treatment ...	16			
Total number treated	19			

GROUP IV.—Orthopaedic and Postural Defects.

	Under the Authority's Scheme			Otherwise			Total number treated
	Residential treatment with education	Residential treatment without education	Non-residential treatment at an orthopaedic clinic	Residential treatment with education	Residential treatment without education	Non-residential treatment at an orthopaedic clinic	
Number of children treated ...	4	—	47	—	—	—	51

TABLE IV.

DENTAL INSPECTION AND TREATMENT.

(1) Number of Children inspected by the Dentists :—						
(a) Routine Age-groups....	....	....	....	....	....	—
(b) Specials	....	....	....	....	....	930
(2) Found to require treatment	....	....	....	....	....	918
(3) Actually treated	....	....	....	....	....	1,028*
(4) Attendances made by children for treatment	....	....	....	....	....	2,860
(5) Half-days devoted to :—						
Inspection	....	....	....	....	....	†
Treatment	....	....	....	....	....	†
						<hr/>
	Total	....	....	....	....	†
(6) Fillings :—						
Permanent teeth	....	....	....	....	....	1,943
Temporary teeth	....	....	....	....	....	7
						<hr/>
	Total	....	....	....	....	1,950
(7) Extractions :—						
Permanent teeth	....	....	....	....	....	750
Temporary teeth	....	....	....	....	....	151
						<hr/>
	Total	....	....	....	....	901
(8) Administrations of general anaesthetics for extractions	....	....	....	....	....	500
(9) Other operations :—						
Permanent teeth	....	....	....	....	....	856
Temporary teeth	....	....	....	....	....	—
						<hr/>
	Total	....	....	....	....	856

* Including 677 who had received treatment previously.

† Special sessions are not devoted to inspection and treatment of secondary and high school children; the numbers of sessions devoted to inspection and treatment of all children are shown on page 173.

MENTAL DEFICIENCY SERVICE.

The mentally defective persons under the care of the Mental Deficiency Committee are classified according to sex, age and form of mental defect in the tables given below. It will be seen on reference to Table III that the total number of ascertained defectives for the care of whom the Committee were responsible at the end of 1935 was 593—an increase of 25 over the number at the end of the previous year. Of the total number of cases, 217 were in institutions or under statutory guardianship, the institutions in which they were placed being shown in Table VII. The number of ascertained cases remaining at home was 373, of whom 260 were under statutory supervision and 113 under voluntary supervision; three remained to be appropriately dealt with. In addition, there were 81 cases in institutions under lunacy orders and 10 cases in poor law institutions but not under orders who would be dealt with more appropriately under the Mental Deficiency Acts. There were also five cases under consideration but not ascertained to be defective.

TABLE I.

SUMMARY OF THE YEAR'S WORK.

(1) Cases examined for the first time :—

				<i>Males.</i>		<i>Females.</i>		<i>Totals.</i>
Idiots	....	....	....	3	....	1	....	4
Imbeciles	....	....	....	2	....	1	....	3
Feeble-minded	....	....	....	17	....	15	....	32
Not mentally defective	....	....	....	3	....	10	....	13
Unclassified	....	....	....	1	....	—	....	1
Totals				26	....	27	....	53

(2) Re-examinations

(3) Removed from list of ascertained cases under supervision at home—

(i) Removed to Institutions at instance of Local Authority—

(a) Obligatory	....	....	....	4	....	7	....	11
(b) Permissive	....	....	....	—	....	—	....	—

(ii) Removed to Institutions at instance of Public Assistance Committee—

(a) Under Lunacy Orders	....	....	....	—	....	1	....	1
(b) Other cases	....	....	....	—	....	1	....	1

(iii) Deceased

(iv) Left Cardiff

Totals	8	14	22
--------	------	------	------	---	------	----	------	----

Table I continued—Summary of the Year's Work.

	Males.	Females.	Totals.
(4) Removed to Institutions (not previously under supervision at home)	1	1	2
(5) Total number removed to Institutions or placed under Guardianship at the instance of Local Authority	5	8	13
(6) Transferred from one Institution to another	17	4	21
(7) Institution cases that ceased to be chargeable to the Local Authority—			
(i) Deceased	—	2	2
(ii) On licence	2	2	4
(iii) Transferred to Mental Hospitals	—	2	2
(iv) Absconded	1	—	1
Totals	3	6	9
(8) Instances in which licence from Institutions or Guardianship was granted	4	4	8
(9) Instances in which cases on licence were returned to Guardianship or Institutions	2	2	4
(10) Visits paid by Visiting Officer			1,793

TABLE II.

SOURCES OF ASCERTAINMENT OF CASES EXAMINED FOR FIRST TIME.

Source of Ascertainment	Idiots	Imbeciles	Feeble-minded	Not Mentally Defective	Unclassified	Totals
Local Education Authority ...	1	1	28	1	—	31
Officers of Public Health Department	—	—	1	1	1	3
Public Assistance Department ...	2	—	1	4	—	7
Ministry of Pensions	—	—	—	2	—	2
Cardiff Royal Infirmary	—	—	—	2	—	2
Parents, Guardians or Relatives ...	1	2	1	1	—	5
Other Local Authorities	—	—	1	—	—	1
Other Sources	—	—	—	2	—	2
Totals	4	3	32	13	1	53

TABLE III.

POSITION AT 31ST DECEMBER, 1935.

			<i>Males.</i>		<i>Females.</i>		<i>Totals.</i>
(1)	Obligatory Cases :—						
	(a) In Institutions	....	99	....	85	....	184*
	(b) Under Guardianship	....	3	....	3	....	6
	(c) On Licence from Institutions	....	9	....	5	....	14
	(d) On Licence from Guardianship	....	—	....	—	....	—
	(e) Absconded from Licence	....	—	....	1	....	1
(2)	In "places of safety "	....	—	....	—	....	—
(3)	Cases in Institutions in regard to whom the Local Authority contributes under permissive powers	....	6	....	6	....	12
	Totals	....	117	....	100	....	217
(4)	Cases in Institutions under Lunacy Orders ascertained to be mentally defective :—						
	(a) Ely Lodge	....	33	....	36	....	69
	(b) Mental Hospitals	....	6	....	6	....	12
	Totals	....	39	....	42	....	81
(5)	Cases at home—ascertained to be defective :—						
	(a) Under Statutory Supervision	....	147	....	113	....	260
	(b) Under Voluntary Supervision	....	50	....	63	....	113
	Totals	....	197	....	176	....	373
(6)	Attending Occupation Centre—included in (5) :—						
	(a) Under Statutory Supervision	..	17	....	10	....	27
	(b) Under Voluntary Supervision	....	—	....	—	....	—
	Totals	....	17	....	10	....	27
(7)	Attending Training Centre :—						
	(a) Under Statutory Supervision—included in (5)	....	19	....	18	....	37
	(b) Under Voluntary Supervision—included in (5)	....	1	....	1	....	2
	(c) On Licence from Institution—included in (1)	....	1	....	—	....	1
	(d) Under Guardianship—included in (1)	....	1	....	1	....	2
	Totals	....	22	....	20	....	42

* Including 14 cases (6 males and 8 females) maintained by the Board of Control

Table III continued—Position at 31st December, 1935.

(8) "Subject to be dealt with" but action not yet taken :—

	Males.	Females.	Totals.
(a) Notified by Education Authority	1	2	3
(b) In Poor Law Institutions	1	9	10
Totals	2	11	13

(9) Under consideration but not ascertained to be defective

4 1 5

TABLE IV.

CLASSIFICATION OF KNOWN CASES.

	In Institutions or under Guardianship (including cases on licence, etc.)			Under Supervision at Home		
	Males	Females	Totals	Males	Females	Totals
Idiots	13	10	23	13	2	15
Imbeciles	45	23	68	56	59	115
Moral Defectives	1	1	2	—	1	1
Feeble-minded	56	65	121	124	114	238
Post-encephalitic Deterioration	1	1	2	1	1	2
Unclassified or not examined ..	1	—	1	4	1	5
Totals	117	100	217	198	178	376

TABLE V.

AGES OF CASES IN INSTITUTIONS OR UNDER GUARDIANSHIP.
(INCLUDING CASES ON LICENCE, ETC.)

Ages— Years	Idiots		Imbeciles		Moral Defectives		Feeble-minded		Post-encephalitic Deterioration		Unclassified		Totals
	M	F	M	F	M	F	M	F	M	F	M	F	
3	1	—	—	—	—	—	—	—	—	—	—	—	1
4	—	—	—	1	—	—	—	—	—	—	—	—	1
5	—	—	1	—	—	—	—	—	—	—	—	—	1
7	1	—	—	—	—	—	—	—	—	—	—	—	1
8	1	—	—	—	—	—	—	—	—	—	—	—	1
9	1	—	1	—	—	—	—	—	—	—	—	—	2
10	—	—	—	1	—	—	—	—	—	—	—	—	1
11	2	—	—	—	—	—	—	—	—	—	—	—	2
12	—	1	1	—	—	—	—	—	—	—	—	—	2
13	2	—	—	2	—	—	—	1	—	—	—	—	5
14	—	1	2	1	—	—	1	—	—	—	—	—	5
15	—	1	—	—	—	—	1	2	1	—	—	—	5
16	—	—	3	—	—	—	1	2	—	—	—	—	6
17	—	1	3	—	—	—	—	2	—	—	—	—	6
18	—	1	1	2	—	—	3	2	—	—	—	—	9
19	1	1	2	—	—	—	2	—	—	—	—	—	6
20—25	2	1	13	4	—	—	14	13	—	—	—	—	47
25—30	2	1	8	5	1	1	17	13	—	1	1	—	50
30—40	—	1	6	6	—	—	17	24	—	—	—	—	54
Over 40	—	1	4	1	—	—	—	6	—	—	—	—	12
Totals	13	10	45	23	1	1	56	65	1	1	1	—	217

TABLE VI.

AGES OF CASES UNDER SUPERVISION AT HOME.

Ages— Years	Idiots		Imbeciles		Moral Defectives		Feeble- minded		Post- encephalitic Deterioration		Unclassified or Not Examined		Totals
	M	F	M	F	M	F	M	F	M	F	M	F	
3	1	—	—	—	—	—	—	—	—	—	1	—	2
4	1	—	—	—	—	—	—	—	—	—	—	—	1
6	—	—	1	—	—	—	—	—	—	—	2	—	3
7	—	—	2	—	—	—	1	—	—	—	1	—	4
9	—	—	2	2	—	—	—	—	—	—	—	—	4
10	—	—	4	1	—	—	—	—	—	1	—	—	6
11	1	—	2	4	—	—	1	2	—	—	—	—	10
12	1	—	1	3	—	—	4	1	—	—	—	—	10
13	—	1	1	2	—	—	3	5	—	—	—	—	12
14	—	—	2	2	—	—	3	2	—	—	—	—	9
15	2	—	2	4	—	—	9	3	—	—	—	—	20
16	—	—	7	3	—	—	15	8	—	—	—	—	33
17	—	—	2	2	—	—	8	6	—	—	—	—	18
18	1	—	4	—	—	—	5	5	—	—	—	—	15
19	1	1	2	2	—	—	8	6	—	—	—	—	20
20—25	3	—	13	14	—	—	32	29	—	—	—	—	91
25—30	1	—	4	5	—	—	14	10	1	—	—	—	35
30—40	—	—	3	12	—	1	16	23	—	—	—	1	56
Over 40	1	—	4	3	—	—	5	14	—	—	—	—	27
Totals	13	2	56	59	—	1	124	114	1	1	4	1	376

TABLE VII.

CASES IN INSTITUTIONS OR UNDER GUARDIANSHIP.

(a) Obligatory Cases.

NAME OF INSTITUTION, Etc.	Idiots	Imbeciles	Moral Defectives	Feeble-minded	Post-encephalic Deterioration	Unclassified	Totals
(a) Institution Cases :—							
Besford Court Catholic Mental Welfare Home, Worcester	—	—	—	3	—	—	3
Cardiff Public Assistance Institution, Ely, Cardiff	20	39	—	27	1	—	87
Drymma Hall, Skewen, Nr. Neath	—	—	—	1	—	—	1
Etloe House, Leyton, Essex	—	1	—	2	—	—	3
Hensol Castle Certified Institution, Nr. Pontyclun, Glam.	—	4	—	17	—	—	21
Hortham Colony, Bristol	—	—	1	21	—	—	22
House of Help, Bath	—	—	—	2	—	—	2
Monkton Hall Home, Jarrow-on-Tyne	—	—	—	1	—	—	1
Moss Side State Institution, Maghull	—	2	—	2	—	1	5
Mount Tabor Certified Institution, Basingstoke, Hants.	—	—	—	2	—	—	2
Newtown and Llanidloes Public Assistance Institution, Caersws	—	2	—	—	—	—	2
Pield Heath House, Hillingdon, Uxbridge	—	1	—	—	—	—	1
Rampton State Institution, Retford	—	—	1	8	1	—	10
Rock Hall House, Combe Down, Bath	—	1	—	—	—	—	1
Royal Earlswood Institution, Redhill	—	1	—	—	—	—	1
St. Elizabeth's Home for Epileptics, Much Hadham, Herts.	—	—	—	3	—	—	3
St. Joseph's Home, The Croft, Sudbury	—	—	—	1	—	—	1
St. Mary's Home, Painswick, Stroud, Glos.	—	—	—	6	—	—	6
St. Raphael's Colony for Epileptics, Barvin Park, Herts.	—	—	—	3	—	—	3
St. Teresa's Home, Lewisham	—	—	—	3	—	—	3
Seafeld House, Seaforth, Nr. Liverpool	—	—	—	1	—	—	1
Stoke Park Colony, Stapleton, Bristol	—	11	—	9	—	—	20
(b) Guardianship Cases :—							
Central Association for Mental Welfare, London	—	1	—	—	—	—	1
Under Guardianship of Parents	—	1	—	3	—	—	4
Approved Homes	—	—	—	1	—	—	1
Totals	20	64	2	116	2	1	205

(b) Permissive Cases.

NAME OF INSTITUTION, Etc.	Idiots	Imbeciles	Feeble-minded	Totals
Cardiff Public Assistance Institution, Ely, Cardiff	3	2	2	7
Etloe House, Leyton, Essex	—	—	1	1
Hensol Castle Certified Institution, Nr. Pontyclun, Glam.	—	1	1	2
Royal Earlswood Institution, Redhill	—	1	—	1
Stoke Park Colony, Stapleton, Bristol	—	—	1	1
Totals	3	4	5	12

TABLE VIII.

CASES REQUIRING EARLY REMOVAL TO INSTITUTIONS OR REQUIRING ALTERNATIVE INSTITUTIONAL ACCOMMODATION AS AT 31ST DECEMBER, 1935.

	Cases at Home				Cases unsuitably placed in Institutions		Totals		
	Parents willing for removal		Parents unwilling for removal						
	M	F	M	F	M	F	M	F	Both Sexes
Idiots	1	—	9	4	4	5	14	9	23
Imbeciles	—	1	29	29	8	9	37	39	76
Feeble-minded	2	—	30	18	4	8	36	26	62
Post-encephalitic Deterioration	—	—	1	—	1	1	2	1	3
Totals	3	1	69	51	17	23	89	75	164

